

THE ORIGINS, HISTORY, AND DEVELOPMENT OF THE  
*TIENTO DE MEDIO REGISTRO* FROM THE SIXTEENTH TO THE EIGHTEENTH CENTURY

By

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## ABSTRACT

### “The Origins, History, and Development of the *Tiento de medio registro* from the Sixteenth to the Eighteenth Century”

The *tiento de medio registro* was one of the most popular types of organ music in the Iberian Peninsula from the late sixteenth century until the beginning of the eighteenth century. A subgenre of the *tiento*, this form was originally developed in the 1530s as a means to “try out” a lute or *vihuela*. The resultant keyboard style by the same name usually featured alternating sections of imitative, chordal, and figurative material. Composers of these pieces, including well-known Iberian figures such as Sebastián Aguilera de Heredia (1561-1627), Francisco Correa de Arauxo (1584-1654), and Juan Cabanilles (1644-1712), employed the *registro partido*—the divided organ manual, usually split between *c'* and *c#'*—in order to exploit the diverse registrational capabilities of Iberian organs; as a result, they produced a large corpus of literature written explicitly for instruments containing this construction technique. Their resultant output displays a variety of formal structures and styles, with complexity and length expanding over time. By the mid-eighteenth century the number of *tientos de medio registros* waned, as the genre—already considered archaic—was gradually replaced by new Classical genres such as the *sonata*.

Chapter 1 provides the background of the origins of the *tiento* genre, including those written for *vihuela* and keyboard, and includes considerations of extant publications and treatises containing theoretical information pertaining to their construction. Chapter 2 examines the development of the Iberian organ from its pan-European roots prior to the sixteenth century to the emergence of an instrument containing elements, such as the *registro partido* and horizontal reeds, which would become synonymous with Iberian

organs—despite the fact that they were often constructed by builders from other countries. Chapter 3 concentrates on the origins and development of the *registro partido* in Spain, Portugal, and the New World, as well as its equivalents throughout the rest of Europe. This approach to organ building quickly spread throughout the peninsula (particularly in Castile) and made the *tiento de medio registro* possible; its tremendous popularity is shown by archetypical stoplists from important organ-building hubs. Chapter 4 is an overview of the *tiento de medio registro* literature and its representative composers. Musical examples demonstrate that there existed both a degree of standardization and compositional traits unique to individual composers. Chapter 5 presents a guide for the effective registration and performance of the Iberian repertoire on modern-day instruments.

The *tiento de medio registro* constitutes a substantial percentage of the surviving Spanish and Portuguese organ repertoire, exhibiting the importance of the *registro partido*, as well as the Iberian proclivity for timbral contrasts and virtuosity. Through the examination of these pieces one comes to understand the aesthetic ideals that guided Iberian organ composition for well over two hundred years.



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## Introduction

The *tiento de medio registro* was one of the dominant genres of organ music in the Iberian Peninsula from the late sixteenth through the early eighteenth centuries. A subgenre of the *tiento*, the *tiento de medio registro* grew out of the *vihuela* and polyphonic keyboard and harp compositions of the early sixteenth century and was characterized by imitation, motet-style counterpoint, and figurative solo sections utilizing the *registro partido*.

In general, the sixteenth-century forerunners of the *medio registro*, *tientos llenos* and *tientos enteros*—pieces intended to be used on a single manual and, most often, only one registration—are smaller in scope than those produced in the seventeenth and eighteenth centuries. The height of sixteenth-century *tiento* writing is frequently attributed to Antonio de Cabezón (1510-1566), whose output includes *tientos* of the various forms as well as *diferencias*, variation sets that are similar in nature to those produced by composers in the Netherlands. Other representative *tiento* composers of the sixteenth century, many of whom wrote extensive theoretical treatises describing the genre's formal aspects, include Tomás de Santa María and Juan Bermudo. The output of this first generation of organ *tiento* composers is important to the overall corpus of Iberian organ music and would serve as models for those writing for the divided keyboard. However, the *tiento de medio registro* is absent from their output.



The characteristics of the *tiento de medio registro* are similar to the various other types of *tientos*, with one fascinating difference: the development of *the tiento de medio registro* was reliant upon distinctive developments in Iberian organ building, as the composition and performance of this type of piece was only made possible by the building of organs with a *registro partido*—a keyboard or register divided in the middle of the manual.<sup>1</sup> A divided keyboard enabled it to be separated into two equal parts, bass and treble, each allowing for a different registration. Most often this permitted the performer to have a solo voice in one half of the keyboard and an accompanimental voice in the other, though the two halves of the keyboard could be registered with sounds of equal strength for compositions that required a *lleno* (principal chorus) registration. Francisco Pacheco and Francisco Correa de Arauxo both credit Francisco de Peraza (1564-1598) with the invention of this technique, though it is likely that the technique was used before Peraza—perhaps sometime around mid-century.<sup>2</sup>

The development of the divided keyboard became highly fashionable in the last quarter of the sixteenth century and by the turn of the century most new Iberian organs were constructed in this manner; many renovations were undertaken to convert older

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<sup>1</sup> Though the custom of referring to a divided keyboard—whether in the bass or the treble—as a *medio registro* stems from Correa de Arauxo’s usage in the seventeenth century and not from the original builders of such stops in the sixteenth century (who referred to the technique in various ways, the most common of which was the designation *registro partido*), the terms are relatively interchangeable. This document will attempt to utilize the term *registro partido* when referring to the organ building technique and when citing documents or sources where this denotation is specifically employed by their authors. The term *medio registro* will be used when deemed necessary, either in quotation or to refer to the genre and literature.

<sup>2</sup> James Wyly, “The Pre-Romantic Spanish Organ: Its Structure, Literature, and Use in Performance” (DMA diss., University of Missouri at Kansas City, 1964), 39.

organs to the new style. Most organists composing after the turn of the seventeenth century would have had access to a divided keyboard organ and the *tiento de medio registro* consequently developed into four general forms: the *medio registro de tiple* (one soprano solo in the upper part of the keyboard); the *medio registro de dos triples* (two soprano parts in the upper part of the keyboard); the *medio registro de baxón* (one bass solo in the lower part of the of the keyboard); and the *medio registro de dos baxones* (two bass parts in the lower part of the keyboard).<sup>3</sup>

The spread of the *registro partido* over the course of several decades led to many composers adopting the new *tiento de medio registro* genre. Sebastián Aguilera de Heredia (1561-1627), Francisco Correa de Arauxo (1584-1654), and Pablo Bruna (1611-1679), among a great many others, wrote in the genre, producing pieces that were broader in scope than those of their predecessors. While many of their pieces showed an adherence to the older style of composers like Cabezón, they experimented with new compositional techniques and fully exploited the many capabilities of the divided keyboard. The compositions of later generations of *tiento* composers, including Juan Bautista Cabanilles (1644-1712), Antonio Martín y Coll (*d* after 1733), and José Elías (*c* 1678-*c* 1755), exhibit further diversity of forms and styles. However, by this time, the *tiento* genre, including the

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<sup>3</sup> These are the names given in Correa's *Facultad orgánica* (1626). Slight variations on these titles exist in the manuscripts and published works editions of other composers. See Francisco Correa de Arauxo, *Libro de tientos y discursos de música practica, y theorica de órgano intitulado facultad orgánica* (Alcalá, 1626), 2 vols., ed. Santiago Kastner (Barcelona: Instituto Español de Musicología, 1948) and Francisco Correa de Arauxo, *Libro de tientos y discursos de música practica, y theorica de organo, intitulado facultad orgánica*, 3 vols., ed. Miguel Bernal Ripoli (Madrid: Sociedad Española de Musicología, 1999-2005).

*tiento de medio registro*, grew less popular and was largely replaced by the bipartite sonatas (in the tradition of Domenico Scarlatti) by composers such as José Lidón and Antonio Soler. Accordingly, the modifications in compositional trends and preferences led to changes in organ building and a movement away from the divided keyboard.<sup>4</sup>

The popularity of the *tiento de medio registro* lasted for well over two centuries. During this time the genre changed in various ways, and experienced a certain degree of standardization. This dissertation examines the history of the *tiento* as a genre and the changes in organ building and design—namely, the invention of the *registro partido*—that led to the creation of an entirely new genre: the *tiento de medio registro*. It will also provide an overview of the resultant literature and how the modern-day organist can adapt this music to any organ.

Chapter 1 covers the early development of the keyboard *tiento* from its lute and vihuela origins and includes consideration of the gradual expansion of the keyboard genre into various types, such as the *tiento de lleno*, *tiento de falsas*, etc., demonstrates the similarities between the *tiento* and other analogous early keyboard genres such as the *toccata*, *ricercar*, and *fantasia* and considers the output and theoretical writings of representative composers. Included will also be an overview of *cifra* notation—a popular system of organ tablature—and its various guises and applications in the literature.

Chapter 2 provides an overview of the history of the Iberian organ from its pan-European construction prior to the sixteenth century to the development of a mature

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<sup>4</sup> Luis Felix Merino, “The Keyboard Tiento in Spain and Portugal from the 16th to the Early 18th Century” (M.A. thesis, University of California, Santa Barbara, 1968), 138.

Iberian instrument characterized by a blend of both foreign and domestic organ building trends. This discussion highlights the incorporation of specific techniques and devices, including the *registro partido* and horizontal reeds, that would come to embody a truly Iberian instrument. In addition, a discussion of geographical areas and notable cities, along with illustrative stoplists, show regional differences in organ building trends that impacted the dissemination of the *registro partido*. Chapter 3 includes further consideration of the advent and steady spread of the *registro partido* in the Iberian Peninsula and its sporadic use throughout Western Europe. Possible reasons for the incorporation of *registro partido* are also provided.

Chapter 4 presents an overview of the *tiento de medio registro* literature, including the output of the most representative composers of the genre, as well as a number of lesser-known figures. Musical examples will highlight important formal, textural, and thematic components of the compositions, as well as draw attention to stylistic characteristics that make individual composers or compositions unusual. Chapter 5 covers the present-day performance of this repertoire, with an emphasis on registration, relying on information found in historical registration lists and organ contracts. Limitations of modern instruments are examined and techniques to achieve an effective performance are offered.

The *tiento de medio* constitutes a significant portion of the surviving Iberian repertoire. The various composers of the genre adhered in varying ways to the formal constraints of the genre, while simultaneously introducing stylistic characteristics that

would result in compositions that embodied the Iberian preference for virtuosity and registrational diversity. The frequent appearance of the *registro partido* and the *tiento de medio registro* in Spain and Portugal exhibits these predilections in a way that was never adopted in the rest of Europe and, consequently, represented aspects of organ culture that are unique to the Iberian Peninsula.

Though many areas of Iberian musical culture and its interconnectivity with pan-European musical activities and history have been investigated, the history of the origins and development of the Iberian organ *tiento* and its various forms has yet to be sufficiently or comprehensively examined or documented. Furthermore, unlike the repertory of organ literature derived from England, France, Italy, Germany, and the Netherlands, schools of composition which have become integral to the corpus of early organ literature, the rich and extensive body of organ repertoire coming out of the Iberian Peninsula has sparked considerably less interest. This neglect has been due, in part, to the particular, sometimes peculiar qualities of the Iberian pipe organ and the large amount of early Iberian organ music that remains unattributed, unpublished, or is found in inadequate or incomplete editions. Though recent interest and advances in scholarship on Iberian music have provided more insight on this subject, existing literature on the history and development of the *tiento de medio registro* remains largely confined to the published compositional and theoretical primary sources of Iberian composers from the time period and a few general surveys of Iberian organ music.

Some present-day scholars and performers, including Robert Bates, Guy Bovet, Calvert Johnson, Kimberley Marshall, Robert Parkins, Montserrat Torrent, and James Wyly, have become avid proponents of performing and studying this literature. Their inclusion of this repertoire on recital programs, recordings, and their insight into the performance of this music has helped to make it better known.<sup>5</sup> Johnson's *Historical Organ Techniques and Repertoire: An Historical Survey of Organ Performance Practices and Repertoire, Volume I: Spain 1550-1830*, is one of the most comprehensive references on the performance of this literature and includes historical background as well as information on fingering, ornamentation, registration and the various genres of Iberian organ music.<sup>6</sup> James Wyly's "The Pre-Romantic Spanish Organ: Its Structure, Literature, and Use in Performance" provides an in-depth history of the Iberian organ, its components, and influences, as well as some discussion of performance practice.<sup>7</sup>

Notable music scholars such as Santiago Kastner, Higinio Anglés, José López Calo, Willi Apel, José Subirá, and Robert Stevenson (among others) have written extensively on Iberian music, including the history of the many types of *tientos*. Kastner's contributions to

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<sup>5</sup> Bates has recorded the complete works of Francisco Correa de Arauxo (1584-1654) with Loft Recordings. The release date of this recording is still pending. See [http://www.uh.edu/class/music/faculty-staff/bates\\_r/](http://www.uh.edu/class/music/faculty-staff/bates_r/).

<sup>6</sup> Calvert Johnson, ed. *Historical Organ Techniques and Repertoire: An Historical Survey of Organ Performance Practices and Repertoire, Volume I: Spain 1550-1830* (Boston: Wayne Leupold Editions, 1994).

<sup>7</sup> James Wyly, "The Pre-Romantic Spanish Organ."

*Anuario musical*<sup>8</sup> include discussions of the *tiento* composers and their music, as well as Iberian organs. In addition, his *Contribución al estudio de la música Española y Portuguesa*<sup>9</sup> and *The Interpretation of 16th and 17th-Century Iberian Keyboard Music*<sup>10</sup> provide both biographical and performance practice information. Robert Stevenson's books on early Spanish music remain classics, and although they only briefly touch on the subject of the *tiento*, they do provide historical and musical backgrounds on the composers and time period under consideration.<sup>11</sup> Willi Apel contributed greatly to scholarship on Iberian keyboard music. His book *A History of Keyboard Music to 1700* was integral to the initial research for this study.<sup>12</sup> In various journal articles Apel also draws important parallels between many genres of keyboard music and demonstrates the international influence of Iberian music.<sup>13</sup> José Subirá's *Historia de la música española e hispanoamericana* is one of the authoritative guides on Iberian music.<sup>14</sup> In addition, the anthologies, facsimiles, and

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<sup>8</sup> This journal created by Higinio Anglés in 1946 and now published by the Consejo Superior de Investigaciones Científicas, contains a wealth of information of topics related to this study. The journal can be accessed online: <http://anuariomusical.revistas.csic.es/index.php/anuariomusical>.

<sup>9</sup> Santiago Kastner, *Contribución al estudio de la música Española y Portuguesa* (Lisbon: Atica LDA., 1941).

<sup>10</sup> Santiago Kastner, *The Interpretation of 16th and 17th-Century Iberian Keyboard Music* (Stuyvesant, NY: Pendragon Press, 1987).

<sup>11</sup> Two such contributions include Robert Stevenson, *Spanish Cathedral Music in the Golden Age* (Berkeley: University of California Press, 1961) and Robert Stevenson, *Spanish Music in the Age of Columbus* (The Hague: M. Nijhoff, 1960).

<sup>12</sup> Willi Apel, *A History of Keyboard Music to 1700* (Bloomington: Indiana University Press, 1972).

<sup>13</sup> Examples of these connections can be found in Apel's "Neapolitan Links Between Cabezón and Frescobaldi," *Musical Quarterly* 24 (October, 1938), 419-437, and "The Early Development of the Organ Ricercar," *Musica Disciplina* 3, 2/4 (1949), 139-150.

<sup>14</sup> José Subirá, *Historia de la música Española e hispanoamericana* (Madrid, Spain: Salvat Editores, 1953).

complete works editions compiled by Kastner, Anglés, Bovet, Apel, and Julián Sagasta Galdós provide useful prefatory notes and many fine examples of *medio registro* pieces.<sup>15</sup>

Also of importance is an in-depth study, *Les origines du tiento*, written by Frenchman Louis Jambou.<sup>16</sup> Although this is perhaps one of the most largest studies on the *tiento*, its discussion of the *tiento de medio registro* is modest at best. The only detailed English sources are two theses on the origins of the *tiento* in Spain and Portugal by Luis Felix Merino and Norma Jean Stevlingson.<sup>17</sup> Though these are of great importance, they mention the *tiento de medio registro* only briefly within the context of the overall genre of the *tiento*<sup>18</sup> and, consequently, render a new and more focused investigation long overdue.

In addition to these secondary sources, there are several primary sources that have been of great importance to this project. Many of these, including Correa de Arauxo's *Facultad orgánica*<sup>19</sup> and Santa Maria's *Libro llamado Arte de tañer Fantasia, assi para Tecla*

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<sup>15</sup> For a complete list of these editions see Bibliography.

<sup>16</sup> Louis Jambou, *Les origines du tiento* (Bordeaux: Éditions du CNRS, Centre regional de publication, 1982).

<sup>17</sup> Merino, *Les origines du tiento*. Also see Norma Jean Stevlingson, "The Stylistic Development of the Tiento on the Iberian Peninsula from Cabezón to Cabanilles" (D.M.A. diss., University of North Texas, 1974).

<sup>18</sup> For example, the Moreno explains the *tiento de medio registro* on pages 73-76. Although he gives examples of such pieces by various composers throughout the study, there is no in-depth explanation or analysis of the genre.

<sup>19</sup> Francisco Correa de Arauxo, *Libro de tientos y discursos de música practica, y theorica de órgano intitulado facultad orgánica* (Alcalá, 1626), 2 vols., ed. Santiago Kastner (Barcelona: Instituto Español de Musicología, 1948); Francisco Correa de Arauxo, *Libro de tientos y discursos de música practica, y theorica de organo, intitulado facultad orgánica*, 3 vols., ed. Miguel Bernal Ripoli (Madrid: Sociedad Española de Musicología, 1999-2005); and Correa de Arauxo, *Facultad orgánica* (Alcalá, 1626), 4 vols., ed. Guy Bovet (Bologna: Ut Orpheus Ed., 2007).



*como para Vihuela*,<sup>20</sup> provide a wealth of information in that they contain not only *tientos*, but also theoretical information important to an understanding of the genre. From these studies one can form an historical context for the development of the *tiento de medio registro*.

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<sup>20</sup> Tomás de Santa María, *Libro llamado Arte de tañer Fantasia, assi para Tecla como para Vihuela* (Valladolid: Francisco Fernández de Córdova, 1565). The treatise can be found online at <[http://imslp.org/wiki/Arte\\_de\\_Ta%C3%B1er\\_Fantasia\\_\(Santamar%C3%ADa,\\_Tom%C3%A1s\)](http://imslp.org/wiki/Arte_de_Ta%C3%B1er_Fantasia_(Santamar%C3%ADa,_Tom%C3%A1s))>.

## Chapter 1

### The Origins of the *Tiento*

#### Background of the *Tiento*

The Spanish *tiento* originated in the first half of the sixteenth-century; as a genre it was in many ways analogous to the *fantasia* found in Germany, England, and the Netherlands, and the *ricercar* and *toccata* in Italy. Derived from the Spanish verb *tentar*, meaning “to test” or “to try out,” the term *tiento* originally denoted a technical piece that allowed the player to tune or become accustomed to his or her instrument, testing the instrument as well as the player’s own dexterity and ability.<sup>1</sup> Though the first *tientos* were written for and performed on a variety of instruments, most notably the lute, harp, and *vihuela*, as well as by a variety of ensemble configurations, by the end of the sixteenth century the genre was almost exclusively a keyboard one, with the most common performance medium being the organ.<sup>2</sup>

A general definition of the formal and stylistic components of the earliest *tientos* is difficult to provide, given that the structural guidelines of the genre were very loose at that time and, often, indistinguishable from other concurrent keyboard genres, so much so, in

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<sup>1</sup> Though perhaps more structurally similar to the *ricercar* or *fantasia*, the *tiento* is related to the *toccata* in its purpose. The term *toccata* is derived from the Italian verb *toccare*, meaning “to touch.” Pieces bearing this title were intended to display the player’s dexterity and abilities.

<sup>2</sup> Ben Ridler and Louis Jambou, “Tiento,” *Grove Music Online*, <<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/27944>> (accessed 7 November 2012).

fact, that many Iberian composers used the terms *fantasia*, *ricercar*, *toccata*, and *tiento* interchangeably. A clear-cut definition of the first *tientos* is also complicated by the fact that the formal and compositional elements of the genre changed throughout its development. For sixteenth-century composers the term *tiento* did not have a single application, but rather was used in numerous ways and applied to a wide variety of compositions, all of which shared only some of the same stylistic and compositional traits.

The primary, shared characteristics of the sixteenth-century *tiento* include the use of strict imitative counterpoint and variations of texture, features that are found in many other keyboard genres of the period. In general, *tientos* composed in the sixteenth century consisted of alternating sections of chordal and figurative musical material and are shorter in length than those that would be produced during the seventeenth and eighteenth centuries.<sup>3</sup>

Two types of *tientos* began to develop concurrently in the mid-sixteenth century: those for *vihuela* and those for keyboard and harp. These genres were roughly the Iberian equivalents to the Italian lute and organ *ricercare*, respectively. Though both varieties appear to have taken root in the early 1530s, they are stylistically distinct from one another.<sup>4</sup> The early *vihuela tiento* can be found in several important published collections from the 1550s. These compositions could function either as introductory pieces or detached, individual compositions. The keyboard *tiento* became the most prevalent and significant keyboard genre during the late Renaissance and throughout the entire Baroque period in Spain and Portugal. According to José López-Caló, writer of the authoritative

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<sup>3</sup> Stevlingson, "The Stylistic Development of the *Tiento*," 1.

<sup>4</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 1.

*Historia de la música española: Siglo XVII*, the *tiento* is by far the most important of all genres of Spanish organ music due to its popularity from the time of its inception up until the beginning of the eighteenth century, the large quantity of works that survives, as well as, in many cases, their compositional excellence.<sup>5</sup>

These *tientos* set the scene for the emergence of the *tiento de medio registro* at the end of the sixteenth century and provide the compositional building blocks for the seventeenth-century masters of the genre. However, before this the genre would go through a period of development and relative standardization.

### **The *Vihuela Tiento***

The *vihuela*<sup>6</sup> *tiento* of the mid-sixteenth century was reminiscent of the many free-form, improvisational genres that were part of the European lute repertory at the time. The first extant Spanish documentation of the idea of “trying out” an instrument for the purpose of tuning appears in Alfonso Fernández de Palencia’s *La batalla campal de los perros contra los lobos*, dating from around 1550.<sup>7</sup> Eight collections of *vihuela* compositions are extant

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<sup>5</sup> José López-Caló, *Historia de la música española: Siglo XVII*, vol. 3 (Madrid: Alianza Editorial, S.A., 1983), 131-132.

<sup>6</sup> The term *vihuela*—also referred to as the *vihuela de mano* or *vihuela común*—was often used to denote a guitar-shaped instrument played similarly to the lute with six double courses, most often tuned to *G, c, f, a, d'* and *g'*. The term *vihuela de mano* or *vihuela común* helped to designate the instrument, plucked with the fingers, from the *vihuela de pénola*, which is played with a plectrum, and the *vihuela de arco*, which employs a bow.

<sup>7</sup> Ridler and Jambou, “Tiento.”

dating from 1536-1593, most of which chiefly contain *fantasías* (of which there are some 219), but also include *tientos*, either in name, intent, or in formal structure and qualities.<sup>8</sup>

The earliest extant examples of the *vihuela tiento* are four solo *tientos* found in Luys Milán's *Libro de música de vihuela de mano. Intitulado El Maestro* (henceforth, *El Maestro*), published in Valencia in 1536, and dedicated to King John III of Portugal. In addition to the four solo *tientos*, the collection includes 40 *fantasías*, six *pavanas*, and various vocal compositions (including *romances*, *villancicos*, and *sonetos*) accompanied by *vihuela*.<sup>9</sup> *El Maestro*, like many subsequent *vihuela* and *tecla* (keyboard) collections, is didactic in nature; Milán's compositions and theoretical material are aimed at the student of the *vihuela*.<sup>10</sup>

The four *tientos* found in the collection are located in the *segundo libro* and carry the designation *tento*, the Portuguese spelling of *tiento* and, more importantly, the term's earliest extant recorded usage; this can be seen in the first line of text accompanying a *tento* written in tablature (Figure 1-1 below).

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<sup>8</sup> For a comprehensive look at *vihuela* music of the sixteenth century, particularly the *vihuela fantasia*, see: John Anthony Griffiths, "The Vihuela Fantasia: A Comparative Study of Forms and Studies" (Ph.D. diss., Monash University, Australia, 1983).

<sup>9</sup> Hannu Annala and Heiki Matlik, *Handbook of Guitar and Lute Composers* (Pacific, Missouri: Mel Bay Publications, 2010), 20.

<sup>10</sup> Deborah Lawrence contends that sixteenth-century *vihuela* publications were unique in the realm of musical printing at this time. Unlike the authors and compilers of many pedagogical collections, which grouped their compositions loosely in order of increasing difficulty, the writers of the *vihuela* collections often grouped the pieces by genre, allowing the performer to easily access whatever type of composition they wished to play. Lawrence attributes this phenomenon to the rise of a middle class in sixteenth-century Spain and the growing importance of music to this newly-empowered sector of society. For more on this subject, see: Deborah Lawrence, "The Music of Social Climbing: Spanish Vihuela Prints as Commonplace Books," *Musical Quarterly* 96/1 (Spring 2013), 137-167.

Figure 1-1. Luys Milán, Heading of *Tento* Three, *El Maestro, segundo libro*, 1536.<sup>11</sup>



Milán refers to the style of composition as *consonancias y redobles*: consonances and redoubled lines. Though technically he was discussing his *fantasías*, the style of the *tentos* is so similar that this stylistic qualification could equally be applied to them.<sup>12</sup> The label, which is used only by Milán, signifies pieces that include alternating sections of chordal material (*consonancias*) and diminutions or figuration (*redobles*). *Vihuela* pieces of this improvisatory, embellished and often virtuosic nature could serve either as stand-alone compositions or as brief, introductory pieces to the lengthier works that followed—most often *fantasías* or suites. Milán's compositions belong to the former category in that they are stand-alone compositions.<sup>13</sup> All of his works show striking similarities to the Italian lute *ricercar* in that chordal sections and figurative sections frequently alternate.<sup>14</sup>

<sup>11</sup> Luys Milán, *Libro de música de vihuela de mano. Intitulado El Maestro* (Valencia, 1536), 141. Available in PDF format via the Spanish digital library of the Biblioteca nacional de España: [http://bibliotecadigitalhispanica.bne.es/view/action/nmets.do?DOCCHOICE=201461.xml&dvs=1400194704157~496&locale=en\\_US&search\\_terms=&adjacency=&VIEWER\\_URL=/view/action/nmets.do?&DELIVERY\\_R ULE\\_ID=4&usePid1=true&usePid2=true](http://bibliotecadigitalhispanica.bne.es/view/action/nmets.do?DOCCHOICE=201461.xml&dvs=1400194704157~496&locale=en_US&search_terms=&adjacency=&VIEWER_URL=/view/action/nmets.do?&DELIVERY_R ULE_ID=4&usePid1=true&usePid2=true). "The *tientos* that follow have terminations [*terminatio* or final cadences] on the fifth or sixth tone. They should be played neither too slow nor too fast, but with [using] the *compás* [meter; number of beats per measure] that I already stated in the musical treatise." Translation by the author.

<sup>12</sup> Bernard D. Sherman, *Inside Early Music: Conversations with Performers* (Oxford: Oxford University Press, 2003), 161. This passage is found in Chapter 8, "Emotional Logic: Andrew Lawrence-King on Renaissance Instrumental Music and Improvisation."

<sup>13</sup> Griffiths, "The Vihuela Fantasia," 56. The improvisatory roots of Milán's compositions can be seen in the stylistic traits of the pieces. Even more transparent is Milán's description of the origin of his published

The high level of compositional sophistication reached by Milán in *El Maestro* is perhaps unexpected given that Milán was not a professional musician.<sup>15</sup> In fact, he purportedly asserted that music was not taught to him, but rather taught him.<sup>16</sup> Milán's output, including his *tentos*, shows a straightforward compositional style, but nonetheless exhibits a level of maturity that lends credibility to Milán's compositional ability in addition to demonstrating that *vihuela* compositions in Spain had reached a high degree of quality by the 1530s. The *tentos* found in *El Maestro* epitomize Milán's approach to composition. The works are generally built of short themes that are developed or rewritten in numerous ways, including with imitation, sequence, or scalar material.<sup>17</sup>

Milán's *tentos* also include some of the earliest tempo indications in the *vihuela* literature. For example, in regards to *tento* #3, Milán states that it should be played *ni muy despacio ni muy apriessa* [sic] (neither too slow nor too fast).<sup>18</sup> In addition to this indication one also finds the following: *Aqui se acaban las quarto fantasias de tentos que por todos los ocho tonos han passado* (This is the end of the four *fantasías de tentos* which are in eight

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compositions. In the dedication to *El Maestro* the author states that the collection is a "book comprising many works which I had taken from the *vihuela* and written down."

<sup>14</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 2.

<sup>15</sup> Milán, a minor nobleman associated with the Valencian court of Germaine de Foix and Fernando de Aragón, is known (particularly outside of musical circles) as the author of *El Cortesano*, published in 1561. The book gives a detailed account of life at the Valencian court and also provides valuable insight into musical, literary, and other cultural practices of the time. See: D. Luis Milán, *El Cortesano: Libro de motes de damas y caballeros* (1561; reprint, Madrid: Imprenta y Estoreotipia de Aribau, 1874).

<sup>16</sup> Annala and Matlik, *Handbook of Guitar and Lute Composers*, 20.

<sup>17</sup> Griffiths, "The Viheula Fantasia," 56.

<sup>18</sup> Milán, *El Maestro*, 141.

modes).<sup>19</sup> Other indications include the tempo markings *algo apriessa* (somewhat quickly) and *apressurado* (rushed).<sup>20</sup> Milán's *tentos* include a variety of tempo changes and technical challenges that allow the *vihuela* player to *tentar la vihuela* (try out the vihuela) and, once again reveal the didactic character of the collection.

The next extant collection of *vihuela tientos* is in Alonso Mudarra's *Tres libros de música en cifras para vihuela*, published in Seville by Juan de León in 1546.<sup>21</sup> The *Tres libros* is a collection of 76 compositions, divided into three books as the title indicates. The first book contains works for beginners, the second consists of pieces arranged by mode, and the third book includes pieces for voice with *vihuela* accompaniment.<sup>22</sup> The collection contains *fantasías*, vocal intabulations of works by Josquin and others, *glosas*, dances, and settings of poetry by Spanish and European writers for voice and *vihuela*.<sup>23</sup>

The collection includes eight *tientos* (in the *segundo libro*), one in each ecclesiastical mode.<sup>24</sup> Each acts as an introductory piece for a subsequent *fantasía*. In fact, with the exception of the *tientos* based on the fifth and sixth modes, the pieces are grouped together

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<sup>19</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 3. According to Milán each of the four *tentos* in the collection moves within the confines of two specific modes: *tento* #1 moves between the first and second mode, *tento* #2 between modes three and four, etc. Thus, the four *tentos* encompass all eight ecclesiastical modes.

<sup>20</sup> Annala and Matlik, *Handbook of Guitar and Lute Composers*, 20.

<sup>21</sup> Some *tientos* found in this collection can also be found in Luis Venegas de Henestrosa's *Libro de cifra nueva*, published in 1557 (to be discussed below).

<sup>22</sup> Griffiths, "The Vihuela Fantasia," 174.

<sup>23</sup> Also notable to the collection are the six compositions for the four-course guitar that end Book I of *Tres Libros*; these are the earliest extant pieces of this type. See Griffiths, 174-175.

<sup>24</sup> The eight ecclesiastical modes are often used as titles for the *tientos*. This topic is touched on in a variety of Renaissance and Baroque sources, including Bermudo's *Declaración* (*Libro quinto*, Chapter V, cxxii) and as late as Nassarre's *Escuela música* of 1723 (Part I, Chapter xviii, 75-80). Many *tientos* may center on one or two different modes. Few composers, Correa de Arauxo being one of them, used the twelve modes that were solidified during the Renaissance; most composers retained the original eight modes.



with a single title: *un tiento y una fantasía* (a tiento and a fantasia).<sup>25</sup> Interestingly, the collection also includes a fifteen-measure homophonic *tiento* that is written for organ or harp (Example 1-1).

Example 1-1. Alonso Mudarra, *Tiento para harpa y órgano* from *Tres libros de música en cifras para vihuela*, 1546.<sup>26</sup>



As a whole, the collection of *tientos* is made up of short pieces that are largely homophonic. These chordal sections are interspersed with brief *glosas*, or figural sections. Such early examples of the *tiento* are free in form; recurring motives appear in varying degrees throughout the compositions. Corresponding *tiento* and *fantasia*, sometimes with *glosas* interspersed between the *tientos* and *fantasias* or at the end of the *tiento-fantasia*

<sup>25</sup> López-Caló, *Historia de la música española*, 133.

<sup>26</sup> Alonso Mudarra, *Tres libros de música en cifras para vihuela* (Sevilla: Juan de León, 1546), transcription by Arnold den Teuling <[http://imslp.org/wiki/Tiento\\_\(Mudarra,\\_Alonso\)](http://imslp.org/wiki/Tiento_(Mudarra,_Alonso))> (1 January 2015).

pieces, utilize the same mode and, often, some of the same motivic material.<sup>27</sup> Griffiths contends that it is likely that the groupings of pieces by mode were intended as suites. The arrangement of pieces, as found in the *segundo libro* of *Tres libros*, appears below:

Table 1-1. Arrangement of Mudarra's Compositions by Mode, *Tres libros, segundo libro*.<sup>28</sup>

Mode 1:	Mode 2:	Mode 3:	Mode 4:
tiento	tiento	tiento	tiento
fantasía	fantasía	fantasía	fantasía
glosa	fantasía	glosa	glosa
fantasía			
Mode 5:	Mode 6:	Mode 7:	Mode 8:
tiento	tiento	tiento	tiento
fantasía	fantasía	fantasía	fantasía
fantasía	glosa	glosa	fantasía
			fantasía

In the preface to Emilio Pujol's 1946 edition of Mudarra's work, the editor makes the assertion that there is little resemblance between the *tientos* of Luys Milán and those of Alonso Mudarra. Pujol supports this claim by arguing that Milán's compositions are *fantasías* that are polythematic and employ a variety of techniques, embellishments, slight

<sup>27</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 7-8.

<sup>28</sup> Griffiths, "The Vihuela Fantasia," 179.

changes in motivic material, etc., to extend the piece and create aural interest.<sup>29</sup> Mudarra's, in comparison, are monothematic works with only occasional embellishments and diminutions (*redobles*), limited *glosas*, or developmental techniques that would expand the scope of the compositions. Mudarra's brief *tientos* are followed by *fantasías* in the same mode, most often related to the preceding *tiento* by motivic or rhythmic material.<sup>30</sup>

While Pujol's formal and qualitative description of the *tientos* by each of these composers are apt, López-Calo discerns that the underlying compositional principals and objectives are the same. Though Milán's compositions act as stand-alone pieces and Mudarra's are introductory, López-Calo is of the idea that both serve the purpose of Milán's definition of the *tiento*: to try out the instrument through techniques and embellishments. For Milán, the *tiento* functioned primarily as an exercise, a study in technical and interpretive ability, which took the compositional form of the *fantasía*. It appears the usage of the term *tiento* was as much about form as function. He states that, although Milán's compositions contain more thorough development and greater use of ornaments, thus, requiring greater technique by the player, Mudarra's pieces also do this—though to a lesser extent.<sup>31</sup> Despite these differing opinions on formal and functional aspects of *tientos* by Milán and Mudarra, they share many similar compositional characteristics and, at the very least, exhibit the many approaches toward writing a developing genre.

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<sup>29</sup> Emilio Pujol, ed., *Tres libros de música en cifra para vihuela* (Seville: Editorial CSIC, 1946).

<sup>30</sup> López-Calo, *Historia de la música española*, 133.

<sup>31</sup> *Ibid.*, 133-134.

Miguel de Fuenllana's *Libro de música para vihuela, intitulado Orphénica lyra*,<sup>32</sup> dating from 1554, is yet another collection that includes *vihuela tientos*.<sup>33</sup> Fuenllana (fl 1553-1578), like Antonio de Cabezón, was blind from birth. He was born around Navalcarnero in the 1520s or 30s and little is known of his life, though he is reported to have spent time at the court of the crown prince Philip in Valladolid, before taking residence in Seville around 1543. He was greatly praised as a composer and performer by Bermudo—who, in his *Declaración de instrumentos musicales* of 1555, described Fuenllana as a “consummate player” of the *vihuela*—and other contemporaries.<sup>34</sup> In 1553 Fuenllana petitioned the crown prince for the rights to print a book of compositions, resulting in *Orphénica lyra*, printed by Martín de Montesdoca after Fuenllana's arrival in Seville. The collection contains 182 compositions, divided into six books. Like most of the Spanish musical publications stemming from this time, *Orphénica lyra* is didactic in nature and begins with a thorough explanation of *cifra* (a form of number notation, to be discussed below), theoretical concepts, compositional principles, and insight into performance practice, following by the six books of compositions.<sup>35</sup> Of these, 160 are for the six-course

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<sup>32</sup> It is not difficult to tell that the Spanish composers of the day were greatly influenced by Italian music—and, indeed, Italian culture in general. This is evidenced in many ways, from the musical compositions found within the many treatises and composition collections and anthologies, as well as the mere titles of these books, many of which, like their Italian counterparts, allude to classical literature in their title (*El Delphín*, *Orphénica lyra*, or *Silva de Sirenas*) or in their illustrations (such as Orfeo in *El Maestro* and Orion in *El Delphín*).

<sup>33</sup> For those who wish to undergo a greater investigation of *Orphénica lyra* a PDF version of the original 1554 print, as provided by the Biblioteca Virtual de Andalucía, is available for download via Petrucci Music Library at: [http://imslp.org/wiki/Orphenica\\_lyra\\_\(Various\)](http://imslp.org/wiki/Orphenica_lyra_(Various)).

<sup>34</sup> John Anthony Griffiths, “Miguel de Fuenllana—Orphénica Lyra” (last modified June 1997, accessed 15 May 2014) [http://www.scoreconversions.com/MFuenllana\\_Intro.html](http://www.scoreconversions.com/MFuenllana_Intro.html).

<sup>35</sup> Like the works found in Milán's *El Maestro*, these compositions are primarily divided into books by genre, allowing the user to go directly to the type of composition he or she wished to play.

*vihuela*, nine are written for five-course *vihuela*, and the remaining compositions are for guitar.<sup>36</sup> A portion of the compositions are original, while the remainder consist mostly of unornamented intabulations of vocal pieces by composers such as Gombert, Morales, Josquin, Juan Vázquez, and Guerrero.<sup>37</sup> These pieces are comprised of a number of different genres: *villancicos*, *madrigales*, *romances*, *fantasías*, *sonetos*, and *motetes*.<sup>38</sup>

Like Mudarra's *Tres Libros*, Fuenllana's *Orphénica lyra* also contains eight *tientos*, each in a different ecclesiastical mode.<sup>39</sup> These are found in the sixth and final book of the collection. They are relatively short, approximately 40-60 measures, and are homophonic in nature. They display Fuenllana's almost exclusive use of vocal models as the basis of his *vihuela* works.

The *vihuela tiento* came to prominence in the 1550s and 1560s with the publication of several collections by some of the most important Spanish composers of the time. The *vihuela tiento*—as is exhibited in the aforementioned collections—can be summarized as a composition whose primary function was to allow the performer to test or try out the tuning and capabilities of the instrument (as well as the player's own technical and musical abilities), often in preparation for a subsequent, generally larger-scale *vihuela* composition. Milán's extant collection is comprised of pieces that are simplistic in nature and follow the

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<sup>36</sup> Fuenllana's compositions are not grouped by difficulty, though he does differentiate between those pieces that are more accessible to the beginner and those that are intended for more accomplished musicians. At the beginning of a majority of the compositions one finds either the label "F" or "D"—standing for *fácil* (easy) or *difícil* (difficult).

<sup>37</sup> Griffiths, "Fuenllana, Miguel de."

<sup>38</sup> For the full table of contents of the collection see Miguel de Fuenllana, *Libro de música para vihuela, intitulado Orphénica lyra* (Seville: Martín de Montesdoca, 1554). Preface available via [http://javanese.imslp.info/files/imglnks/usimg/2/25/IMSLP258025-PMLP418437-fuenllana\\_orphenica\\_lyra.pdf](http://javanese.imslp.info/files/imglnks/usimg/2/25/IMSLP258025-PMLP418437-fuenllana_orphenica_lyra.pdf) (accessed 1 January 2015).

<sup>39</sup> The *tientos* begin on folio clxx.

common formal layout of alternating sections of chordal and figurative material, while Mudarra was able to more fully incorporate additional compositional techniques and a greater musical complexity that allowed the player to really “test” the instrument. The other contemporaneous publications show a compositional process and musical function similar to those of Milán and Mudarra, and most adhere to the didactic style of sixteenth-century musical treatises and compositional writings.

### **The Keyboard *Tiento***

Though it is difficult to definitively state when the keyboard *tiento* began to develop, it is probable that they were being composed by about 1535—that is, concurrently with the initial development of the *vihuela tiento*. According to Luis Felix Merino, this date is somewhat arbitrary because the first published pieces of the keyboard genre do not appear until Juan Bermudo’s *Declaración* (1555). Indeed, many of the first keyboard publications containing *tientos*, either in name or in structure, appeared in the 1550s. However, Merino hypothesizes that Antonio de Cabezón, who was around twenty-five years old in 1535, was most likely composing *tientos* at this time. In addition, the Italian *ricercar*, which shares many traits with the Iberian *tiento*, began to develop at roughly the same time, lending credence to this notion.<sup>40</sup>

Though the development of the *vihuela* and keyboard *tiento* appears to have been contemporaneous, the developing genres exhibit both striking similarities and marked differences in form, texture, and use. The earliest of these polyphonic, imitative pieces

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<sup>40</sup> Merino, “The Keyboard Tiento in Spain and Portugal,” 14.

could be either monothematic or polythematic, with the polythematic type (as seen in the works of Antonio de Cabezón and others from the earliest generation of *tiento* composers) being the most common. Musical material may or may not be restated throughout a composition. The pieces were sectional and greatly varied in length, from brief works (some as short as twenty measures or less) to much longer polythematic, sectional pieces.<sup>41</sup>

The roots of instrumental music of the sixteenth century, as is exhibited by the *vihuela* collections listed above, which were most often a combination of newly-composed pieces and ornamented intabulations of vocal works, could often be traced to vocal music; indeed, many instrumental pieces of this time period were drawn from motets, *chansons*, or dance-songs. Though the dance-song most clearly showed itself in the development of the instrumental suite, the *tiento*, like the *ricercar* and *fantasia*, owes its development, in part, to the early-sixteenth-century motet. The stylistic traits of this vocal genre can be seen in the eventual appearance of imitative material in the resultant *tientos*.<sup>42</sup>

The intabulation of vocal pieces to keyboard pieces was common throughout Europe in the sixteenth century, and Spain was no exception. When transferring the vocal model to an instrumental piece, the original vocal model could be reworked in two different ways: either the original vocal piece was kept essentially unchanged, or the new composition could be supplemented by the copious amounts of ornamentation or the alteration of specific sections of a piece. The latter technique was known to the Spanish as a

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<sup>41</sup> Ibid., 15.

<sup>42</sup> William S. Newman, "The Instrumental Background of the Early Baroque Sonata," *Bulletin of the American Musicological Society* 9/10 (June 1947), 6. See also William S. Newman, *The Sonata in the Baroque Era* (New York: W. W. Norton and Company, 1972).

*glosa*. Most often the *tientos* based on vocal models can be placed in the *glosa* category.<sup>43</sup>

Illustrations of this technique can be seen in *tientos* by Francisco Palero and Antonio de Cabezón, who both use the *Cum sancto Spirito* from Josquin des Prez's *Missa de Beata Virgine* as their basis. Example 1-2 shows Josquin's setting of the text, while Examples 1-3 and 1-4 show Palero's and Cabezón's reworkings of the original—each supplemented with the alternation of contrapuntal and figural material as is typical of sixteenth-century *tientos*.

Example 1-2. Josquin des Prez, *Cum sancto Spirito* from *Missa de Beata Virgine*, mm. 1-5.<sup>44</sup>

⑤

Cum Sancto Spiritu. Spiritu,

Cum Sancto Spiritu - - - - - ri - tu,

Cum Sancto

Cum Sancto Spiritu - - -

<sup>43</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 36-37.

<sup>44</sup> Friedrich Blume, ed., *Josquin des Prés: Missa de Beata Virgine*, in *Das Choralwerk*, vol. 42 (Wolfenbüttel: Mösseler Verlag, 1936), 16. Available online via [http://imslp.org/wiki/Missa\\_de\\_Beata\\_Virgine\\_\(Josquin\\_Desprez\)](http://imslp.org/wiki/Missa_de_Beata_Virgine_(Josquin_Desprez)).



Example 1-3. Francisco Palero, Use of Thematic Material from Josquin's *Cum sancto Spirito* in *Tiento sobre Cum sancto Spirito*, mm. 1-14.<sup>45</sup>



Example 1-4. Antonio de Cabezón, Use of Thematic Material from Josquin's *Cum sancto Spirito* in *Tiento sobre Cum sancto Spirito*, mm. 1-18.<sup>46</sup>



Despite the structural similarities between *tientos* written for *vihuela* or keyboard, including their simultaneous development, common vocal models used as the basis of

<sup>45</sup> Francisco Palero, *Tiento sobre Cum sancto Spirito*, trans. by Luigi Cataldi. Available online via [http://imslp.org/wiki/Tiento\\_sobre\\_Cum\\_Sancto\\_Spiritu\\_de\\_Josquin\\_\(Fern%C3%A1ndez\\_Palero,\\_Francisco\)](http://imslp.org/wiki/Tiento_sobre_Cum_Sancto_Spiritu_de_Josquin_(Fern%C3%A1ndez_Palero,_Francisco)).

<sup>46</sup> Felipe Pedrell, ed., *Hispaniae Schola Musica Sacra*, vol. 7 (Barcelona: Juan Pujol & C., 1895-98), 9. Available online via [http://imslp.org/wiki/Keyboard\\_Music\\_\(Cabez%C3%B3n,\\_Antonio\\_de\)](http://imslp.org/wiki/Keyboard_Music_(Cabez%C3%B3n,_Antonio_de)).

intabulations, and comparable structural components, the genres had obvious differences in their intended uses and, perhaps, in the very psychology behind their composition. In the opening chapter of *Keyboard Music Before 1700*, editor Alexander Silbiger writes:

With the introduction of a keyboard, musicians lost direct contact with the source of their music. A mechanism, sometimes elementary, sometimes formidably complex, was interposed between vibrating strings or air columns and their own bodies. Yet this device proved to be a tool of unprecedented power, allowing a single individual to harness music's full harmony, whether for private solace or for the spiritual uplift of a multitude. Few of the instrument's qualities were as consequential as the ability of each of the player's hands to produce music by itself. The two hands could be like two players, both emerging from one, and easily merged back into one. This effect determined much of keyboard's special character as well as the forms of notation; the early history of keyboard music can be seen as a history of the exploration and exploitation of this two-handed potential.<sup>47</sup>

It is perhaps this mentality that led to an expansion of the *tiento* from its most basic compositional roots and models. As a result, the *tiento* quickly expanded from sparingly-ornamented intabulations of pre-existing vocal models to pieces that varied widely in length, number of voices, ornamentation, and complexity.

The corpus of early, vocal-based *tientos* was soon supplemented by newly-composed *tientos*—most frequently by the *tiento lleno*. The *tiento lleno* was intended for one of the various *lleno* (chorus) registrations possible on sixteenth-century Spanish or Portuguese organs.<sup>48</sup> It could also denote a piece that necessitated the use of only one manual with no (or infrequent) registration changes. This designation would become more important with the advent of the *medio registro*, but in the mid-sixteenth century it acted as a generic term for the genre and provided insight into the registrational choices available to the performer.

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<sup>47</sup> Alexander Silbiger, ed., *Keyboard Music Before 1700* (New York: Schirmer Books, 1995), 1.

<sup>48</sup> See page 318 for a listing of possible *lleno* registrations.

There were two types of sixteenth-century *tientos* that were composed less frequently than the *tiento lleno*—and, eventually, the *tiento de medio registro*: the *obra* (work) and *discursos* (speech or discourse). The *obra* is simply a *tiento* that is larger in scope than a usual *tiento*. Accordingly, most *obras* are sectional, contain textural changes, and have two or more themes. In essence, the *obra* varied little from the *tiento* and the distinction was most often up to the composer in his choice of title.

The *discurso* has two possible definitions. For one, the *discurso* could have almost the same definition as the *obra*: a *tiento* of expanded scope and development. The other possible denotation was a work that began with a main theme or tune and developed the original theme through a series of variations. In other words, a *discurso* was simply a variation set, which are often titled *diferencias*.<sup>49</sup>

Like the *vihuela tiento*, which could serve either a secular or sacred role, the keyboard *tiento*, which could be based on secular vocal works, derived from sacred works, or exist as newly-composed pieces that were either loosely based on chant or new works without sacred origin, would soon find their place in the Roman Catholic liturgy. Correspondingly, we have some clues as to how the *tiento* may have been used in Spanish churches. Though organists frequently employed *versos*—pieces used in *alternatim* practice with the choir—in places within the liturgy where it was necessary to determine a particular mode, they likely performed *tientos* when this was not the case. According to *Declaración de los órganos que ay en el monasterio*, a manuscript found at El Escorial monastery near Madrid that catalogues and accounts for the several organs at the site,

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<sup>49</sup> Johnson, *Historical Organ Techniques: Spain*, 11.

*tientos* were especially well-suited for offertories and graduals.<sup>50</sup> In addition, Nassarre also provides some insight on the subject. He supports the use of *tientos* as offertories, particularly *tiento de falsas* as they provided the solemnity necessary for this specific point in the Roman Catholic Mass.<sup>51</sup> Above all, he states that a choral offertory is frequently too short for this time in the service, and a *tiento* is more appropriate.<sup>52</sup> It is likely that the *tiento de falsas* was also used after the elevation—as was the custom in Italy (with the *toccata durezza e ligatura*). In rare cases, *tientos* intended for this purpose are labelled *levantar o Deus* (raise to God) or *para la Elevación* (for the elevation).<sup>53</sup> This new inclusion within the Roman Catholic liturgy only served to further popularize the genre and resulted in an abundant repertoire.

Indeed, almost all of the great figures of Spanish keyboard music were notable *tiento* composers, and their output shows that, despite the influence of foreign musicians and the gradual development over time of the Spanish organ and its literature, the organ music that was composed during the Golden Age continued to be of a conservative nature. The *tientos* (with the exception of the *falsas*) contain little chromaticism. A strong modal basis continued well after the major-minor tonal system emerged towards the end of the

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<sup>50</sup> A Spanish transcription of this document can be found in: Luis Hernández, ed., *Música y culto divino en el real monasterio de El Escorial* 1 (El Escorial: Ediciones Escorialenses, 1993). Also see Guy Bovet, “La ‘Declaración de los órganos...’ (1587) de Diego del Castillo ou les quatre orgues de Gilles Brebos à l’église de l’Escorial,” *La Tribune de l’orgue: Revue Suisse Romande* 49/2 (1997), 17-26.

<sup>51</sup> The *tiento de falsas* is another subgenre of the *tiento*. Composers writing in this style incorporated strings of suspensions utilizing non-harmonic tones (“false notes” or *falsas*) that help provide harmonic interest to the piece; the style is similar to the Italian *durezza e ligature*.

<sup>52</sup> This is not surprising given the improvisational nature of the early *tiento*. This seems to reflect the practice of fitting an offertory piece to the exact time needed, a practice that, in many liturgical traditions, continues to this day.

<sup>53</sup> Barbara Brewster Hoag, *The Performance Practice of Iberian Keyboard Music of the Seventeenth Century* (Ph.D. diss., New York University, 1980), 39-40.

seventeenth century.<sup>54</sup> Up until the beginning of the eighteenth century and the growing popularity of the sonata, Spanish organ music preserved its conservative style.<sup>55</sup>

According to Silbiger, this conservatism should not be mistaken for a compositional style that was dull or uninspired. Interesting augmented and diminished chords, cross-relations, and the frequent use of falling diminished fourths all add a fascinating and attention-grabbing element to this music. In addition, changes in meter, rhythmic variance, and syncopation add diversity to these pieces.<sup>56</sup>

The earliest published keyboard collections in Spain appear in the mid-sixteenth century. It is apparent from extant compositions that Spanish keyboard composition had already reached a high level of development and sophistication by this time. In addition to the published music collections of the sixteenth-century, Spanish composers and theorists produced an abundant number of theoretical treatises, more than any other country during the same period, some of which include information on the composition of *tientos*.<sup>57</sup>

Keyboard *tientos*, both secular and sacred, from the sixteenth century can be found in both printed and manuscript sources. Juan Bermudo's *El libro llamado Declaración de los instrumentos musicales* (Osuna, 1555) is one of the earliest collections to contain such pieces. Bermudo's treatise of more than 300 pages addresses a wide variety of topics concerning sixteenth-century instruments and compositional practices. Despite its length,

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<sup>54</sup> Robert Parkins, "Spain and Portugal," in *Keyboard Music Before 1700*, ed. Alexander Silbiger (New York: Schirmer Books, 1995, 312-359), 300.

<sup>55</sup> James Dalton, "Iberian Organ Music Before 1700," in *The Cambridge Companion to the Organ*, eds. Nicholas Thistlethwaite and Geoffrey Webber (Cambridge: Cambridge University Press, 1999), 164.

<sup>56</sup> Parkins, "Spain and Portugal," 300.

<sup>57</sup> *Ibid.*, 304.

the *Declaración de los instrumentos musicales* includes few complete pieces, of which only four are *tientos*. In the treatise examples of *tientos* are provided to support a claim or to provide insight into a compositional or musical process.<sup>58</sup>

The four pieces by Bermudo that are essentially *tientos*, though not designated as such, are identified by mode: *modo primero con resabios de quarto* (first mode with remnants of the fourth, see Figure 1-2 below),<sup>59</sup> *modo quarto* (fourth mode), *modo sexto verdadero* (sixth true mode), and *modo octavo* (eighth mode). In general, the works are rather limited in length and scope, ranging from 50 to 60 measures, and are in four-voice counterpoint, each starting with a point of imitation. The extent to which the imitation continues throughout the piece varies from one piece to another; some are monothematic while others are polythematic.<sup>60</sup>

One of the first substantial keyboard collections and the earliest extensive source containing *tientos* is Luis Venegas de Henestrosa's *Libro de cifra nueva*. Though published in 1557 in Alcalá de Henares, it was compiled during the previous decade.<sup>61</sup> Written in Spanish number tablature (*cifra*), from which the collection takes its name, it includes a preface and approximately 138 works, including 28 *tientos*. Henestrosa acts as compiler and editor—a role that he undertook with great artistic license. The compilation contains works by many great—and some not-so-great—composers of the time. Pieces by Cabezón

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<sup>58</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 20.

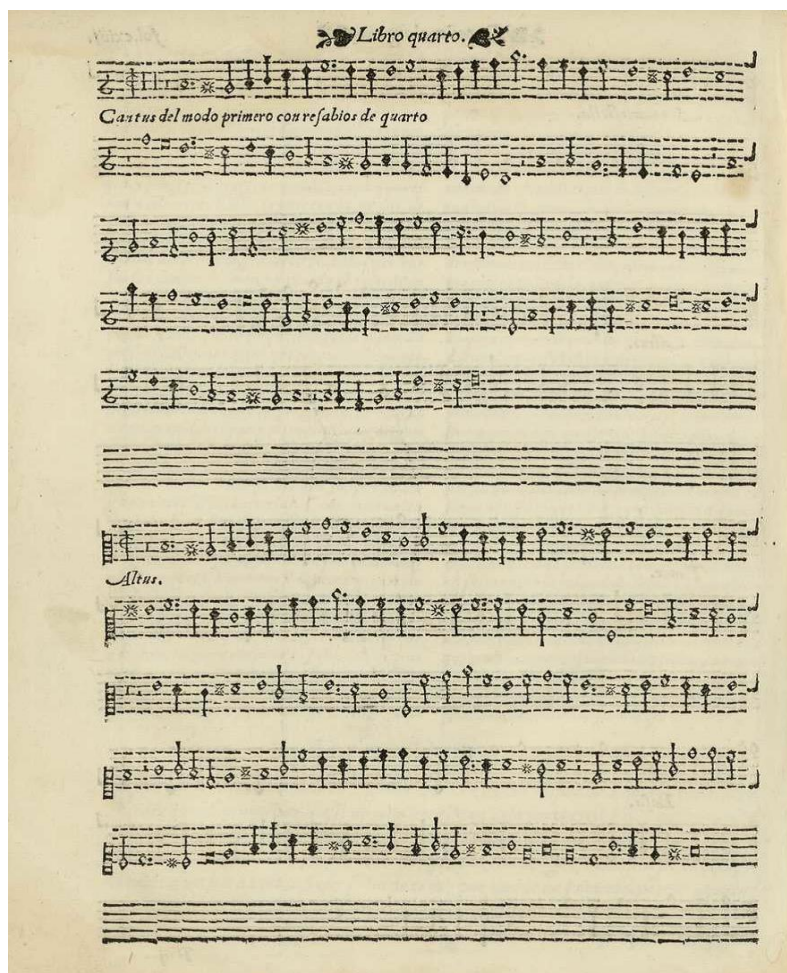
<sup>59</sup> Juan Bermudo, *El libro llamado declaración de los instrumentos musicales* (Osuna: Juan de Leon, 1555), cxiii. <[http://imslp.org/wiki/El\\_libro\\_llamado\\_declaraci%C3%B3n\\_de\\_instrumentos\\_musicales\\_\(Bermudo,\\_Juan\)](http://imslp.org/wiki/El_libro_llamado_declaraci%C3%B3n_de_instrumentos_musicales_(Bermudo,_Juan))> (accessed 5 May 2014).

<sup>60</sup> Apel, *Keyboard Music to 1700*, 194.

<sup>61</sup> A PDF scan of the original 1557 print is available online, via the Petrucci Music Library at [http://imslp.org/wiki/Libro\\_de\\_cifra\\_nueva\\_\(Venegas\\_de\\_Henestrosa,\\_Luis\)](http://imslp.org/wiki/Libro_de_cifra_nueva_(Venegas_de_Henestrosa,_Luis)).

(whose *tientos* make up the majority of those found in the collection), Morales, Clemens non Papa, Palero, and Mudarra are included in the anthology.<sup>62</sup>

Figure 1-2. Example of *tiento* “del modo primero con resabios de quarto,” in Juan Bermudo’s *Declaración de los instrumentos musicales*, folio cxiii.<sup>63</sup>



<sup>62</sup> Venegas de Henestrosa was less than consistent as an editor and his editorial method has undergone a great deal of scholarly scrutiny and criticism. In some cases, Venegas was faithful to the original source and in others he transferred the musical material from one instrument (such as *vihuela*) to another (keyboard). In still other instances, he altered compositions, apparently inserting new material or simply omitting complete sections of a piece. For more on this topic, see: John Ward, "The Editorial Methods of Venegas de Henestrosa," *Música Disciplina* 6 (1952), 105-113.

<sup>63</sup> Bermudo, cxiii. The individual voice parts are written out separately as was common in partitura notation during this time period. This type of page layout would likely be difficult for most modern-day performers, but organists of Bermudo's day would have been trained to read such an arrangement.

In regards to the *tiento*, Venegas de Henestrosa's *Libro de cifra nueva* is a significant source, as it contains works by several representative composers of the first generation of *tiento* writers, including two by Pedro Alberch y Vila, three from Francisco Palero, three by Julius de Modena, and two by Francisco de Soto. Four anonymous *tientos* can also be found in the collection.<sup>64</sup> Like many of the aforementioned sources, Venegas organizes the collection by genre and begins the segment of the book for *tientos* with a heading stating that the pieces that are to follow were composed *de Antonio y de otros tañedores de los ocho tonos* (by Antonio [de Cabezón] and other performers, based on the eight tones; see Figure 1-3 below).<sup>65</sup> Written for keyboard, harp, and *vihuela*, the style of the works meant that they could, with only a little reworking, be performed on any of the intended instruments.<sup>66</sup> Pedro Alberch Vila (1517-1582), in addition to being a well-respected composer and organ builder, held the post of organist at Barcelona Cathedral from 1538 until his death.<sup>67</sup> His works, mostly *ensaladas*, sacred choral works, and *tientos* were, like Fuenllana's, greatly praised by the theorist Juan Bermudo. His two extant *tientos* are represented in Venegas's *Libro*. The works are imitative and polythematic; though the sections have the same primary subject, secondary subjects are not derived from this initial material.<sup>68</sup> The *tientos* by Vila show a strict adherence to Renaissance counterpoint, as seen in the long-note

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<sup>64</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 69.

<sup>65</sup> Luys Venegas de Henestrosa, *Libro de cifra nueva para tecla, harpa, y vihuela* (Alcalá de Henares: Joan de Brocar, 1557), folio xx.

<sup>66</sup> Parkins, "Spain and Portugal," 304.

<sup>67</sup> Don Michael Randel, ed., "Pedro Alberch Vila," *The Harvard Biographical Dictionary of Music* (Cambridge, MA: Harvard University Press, 1996), 10-11. For further information on Vila see José Romeu Figueras, "Notas a la bibliografía del músico Pere Alberch Vila," *Anuario Musical* 26 (1971), 75-92.

<sup>68</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 70.



opening found in Example 1-5 below. It is unfortunate that these are the only extant *tientos* by Vila; though he purportedly published his own *Libro de tientos*, it has, unfortunately, not survived.<sup>69</sup>

Figure 1-3. *Tiento* Heading in the *Primer libro*, in Venegas de Henestrosa's *Libro de cifra nueva para tecla, harpa, y vihuela*, 1557.

*Primer libro.*

Siguenfe otros tientos de Antonio y de otros  
tañedores de los ocho tonos.

*Primer tiento del primer tono, ANTONIO.*

<sup>69</sup> Apel, *Keyboard Music to 1700*, 195. There was a copy in the library of King John IV of Portugal, which was destroyed by the earthquake of 1755.

Example 1-5. Pere Alberch Vila, Long-note Subject of *Tiento*, mm. 1-19.<sup>70</sup>

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Francisco Fernández Palero was organist at the Royal Chapel of Granada from at least as early as 1568 until his death in 1597. As was common in the first generation of *tiento* composers, Palero's works were often transcriptions of pre-existing vocal pieces. Of the three *tientos* by Palero included in Henestrosa's *Libro*, all are based on vocal pieces. As Josquin was extremely popular, it is perhaps not surprising that one of Palero's *tientos* are based on vocal works by Josquin: one is based on a setting of *Cum sancto Spiritu*.<sup>71</sup> Palero's *tiento* based on *Cum sancto Spiritu* (Figure 1-4 below in its original *cifra*) at 100 measures long shows the expanding scope of the sixteenth-century *tiento*. It continues to feature imitation as its primary compositional technique and employs a four-voice texture.

<sup>70</sup> Barry Ife and Roy Truby, eds., *Early Spanish Keyboard Music: An Anthology, Vol. 1: The Sixteenth Century* (New York: Oxford University Press, 1986), 16.

<sup>71</sup> Available in a modern transcription by Luigi Cataldi at <http://petrucci.mus.auth.gr/imglnks/usimg/9/96/IMSLP222049-WIMA.5245-cum.pdf>.

Figure 1-4. Palero's *Cum sancto Spiritu* in Venegas de Henestrosa's *Libro de cifra nueva para tecla, harpa, y vihuela*, 1557.<sup>72</sup>

33

fo: xxxii

De cifra nueva.

Septimo tono sobre cum sancto Spiritu, de Iusquin, de beata virgine,

Another Palero based another *tiento* on Jean Richafort's (c 1480-1547) motet

*Philomena*.<sup>73</sup> Like that modeled after *Cum sancto Spiritu*, the piece is written in four-parts.

<sup>72</sup> Venegas de Henestrosa, *Libro de cifra nueva*, folio xxxii.

However, unlike the former piece, it employs greater use of *redobles* (scalar passages and diminutions) and other ornamentation. It is also one of the few compositions in Venegas's anthology that includes any tempo indication.<sup>74</sup>

While Palero was better known in his day than either de Soto or Vila, his fourteen works, including the three *tientos* found in Venegas's anthology, are often considered by scholars to be of lesser quality than those of his peers. His *tientos* are unexceptional and lackluster. In this same vein, a majority of Palero's other compositions are simple, sparsely ornamented intabulations of works by other composers. Compositions #100 and #101 are derived from Kyries from Josquin's *Missa de Beata Virgine*. Pieces #104 and #105 are intabulations of Spanish romances, and #114, #115, and #116 are intabulations of motets by Jaquet of Mantua (Jacques Colebault, 1483-1559), Philippe Verdelot (*c* 1480; *d* before 1552), and Jean Mouton (*b* before 1459; *d* 1522), respectively. If Palero lived up to the reputation he had during his day it is certainly not represented by the compositions found in Venegas's *Libro*.<sup>75</sup>

Two *tientos* by the Italian organist Julius de Modena (1498-1561, often found under his Italian name, Guilio or Julio Segni) are also included in Venegas's *Libro*. These pieces, not surprisingly, are almost indistinguishable from the Italian *ricercar*, as he was mostly known for his compositions of this genre for both lute and keyboard.<sup>76</sup> In fact, it is possible

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<sup>73</sup> For a transcription see [http://petrucci.mus.auth.gr/imglnks/usimg/4/43/IMSLP06587-Tiento\\_XXVI\\_Super\\_Philomena\\_-\\_Francisco\\_Fernandez\\_de\\_Palero.pdf](http://petrucci.mus.auth.gr/imglnks/usimg/4/43/IMSLP06587-Tiento_XXVI_Super_Philomena_-_Francisco_Fernandez_de_Palero.pdf).

<sup>74</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 70-71.

<sup>75</sup> Apel, *Keyboard Music to 1700*, 195.

<sup>76</sup> Don Michael Randel, ed., "Julio Segni," in *The Harvard Concise Dictionary of Music* (Cambridge, MA: Harvard University Press, 1999), 600.

that while Venegas cites these pieces as *tientos*, it may be yet another example of the interchangeable nature of the *tiento* with the *fantasía* and *ricercar*. This is supported by evidence that Julius de Modena, who indeed was from the Italian city of Modena and served as the first organist at St. Mark's in Venice from 1530 to 1533, was held in high regard for his *ricercari*, as seen in Italian collections such as *Musica nova* (Venice, 1540). Of the 21 pieces found in this collection, including those by such esteemed composers as Adrian Willaert (c 1490-1562), a resounding thirteen are *ricercari* by Julius de Modena!<sup>77</sup> Regardless, the inclusion of these so-called *tientos* in the *Libro de cifra nueva* support the composer's status as an important keyboard composer in Europe at the time.

Francisco de Soto (c 1500-1563) is notable in that he was, along with Cabezón, an organist at the court of Philip II in Madrid. Like Vila and Fuenllana, his compositions were applauded by Bermudo, and he was well-known in Spain as a keyboard composer. His *tientos* are not primarily contrapuntal.<sup>78</sup> Francisco de Soto's two *tientos* in Venegas's collection are #49 and #50. Both are largely homophonic, with imitative counterpoint only at the very beginning of the compositions (Example 1-6). Both de Soto and Vila's pieces are more lyrical than those by Cabezón.<sup>79</sup>

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<sup>77</sup> Richard Taruskin, ed., *Music from the Earliest Notations to the Sixteenth Century* (New York: Oxford University Press, 2009), 546.

<sup>78</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 72.

<sup>79</sup> Apel, *Keyboard Music to 1700*, 195.

Example 1-6. Francisco de Soto, *Tiento del sexto tono*, mm. 1-13.<sup>80</sup>

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Another collection worth mentioning is Tomás de Santa María's *Libro llamado Arte de tañer fantasia assi para tecla como para vihuela*. It was allegedly begun around 1541, but not published until 1565 in Valladolid due to a paper shortage. Fray Tomás de Santa María (d 1570), a native of Madrid and member of the Dominican order, was one of the most important music theorists in sixteenth-century Spain. A respected organist and teacher, he held various organist positions in Dominican monasteries throughout Castile.<sup>81</sup>

Santa María's *Arte de tañer fantasia* is primarily a theoretical treatise that gives a detailed and systematic approach to composing *fantasías*. However, given their formal structures and compositional characteristics, these works are essentially *tientos*. The pieces begin with imitative counterpoint. As with other early *tiento* and *fantasía* composers, Santa María frequently uses paired imitation (Example 1-7 below).

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<sup>80</sup> Ife and Truby, *Early Spanish Keyboard Music*, 14.

<sup>81</sup> Almonte Howell and Miguel A. Roig-Francolí, "Santa María, Tomás de," *Grove Music Online* (accessed 2 May 2014) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/24534>.

Example 1-7. Paired Imitation in the Subject of *Fantasía* in Santa María's *Libro llamado Arte de tañer fantasía assi para tecla como para vihuela*.<sup>82</sup>

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Santa María's *Arte* is similar to Bermudo's *Declaración de los instrumentos musicales* in that it uses multi-line part notation (*partitura*) and not *cifra*. Though Santa María does not state that the pieces included in his treatise could also be performed on the harp, one may assume that given the close ties between keyboard and harp compositions, this would most likely be the case. This association can also be found in Manoel Rodriques Coelho's *Flores de música*, a collection for keyboard and harp published in 1620, which, like *Arte*, was also written in *partitura*.<sup>83</sup> The collection provides great insight into the compositional processes of a quickly-developing genre.<sup>84</sup>

Though there are fewer extant Portuguese examples of *tientos* from the same time period, Ms. 242 preserved in the University Library of Coimbra contains several notable compositions. Many of the *tientos* in this collection (approximately 30 works) are by

<sup>82</sup> Ife and Truby, *Early Spanish Keyboard Music*, 12.

<sup>83</sup> Cristina Bordas, "The Double Harp in Spain from the 16<sup>th</sup> to the 18<sup>th</sup> Centuries, *Early Music* 15/2, Plucked String Issue (May 1987), 151.

<sup>84</sup> Almonte C. Howell Jr., "Paired Imitation in 16<sup>th</sup>-Century Spanish Keyboard Music" *The Musical Quarterly* 53/3 (July 1967), 377-378.

Antonio Carreira (c 1525-c 1590), while the rest are mostly anonymous or have been ascribed to Carreira's contemporary, Heliodor de Paiva.<sup>85</sup> It should be noted that some of the compositions are attributed only to a composer known as "Ca," which could refer to either Carreira or, in some cases, to Cabezón, some of whose works are included in the collection. Those pieces positively attributed to Carreira lack the imitation of the pieces by Cabezón; the entire group adheres to the typical stylistic characteristics of the first generation of *tiento* composers.<sup>86</sup>

### **The *Tientos* of Antonio de Cabezón**

Antonio de Cabezón (1510-1566) represents the height of sixteenth-century *tiento* writing. His output includes *tientos* drawn from the various forms of the genre, including the *tiento lleno*. He also wrote *diferencias*, hymn settings, and intabulations. Though other composers of this time period wrote *tientos*, Antonio de Cabezón, who was called an *Orfeo de nuestros tiempos* (Orfeo of our time) by his employer Philip II,<sup>87</sup> is often cited as the most significant sixteenth-century composer of the genre due to his mastery of the form.

Born in Castrillo de Matajudíos (near Burgos) in 1510, little is known of Cabezón's early life. There is evidence that he went blind in early childhood, but this seems not to have hindered his musical education, as he went on to study with García de Baeza at Palencia Cathedral. In 1526 Cabezón was employed by the Empress Isabella and was later

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<sup>85</sup> Ibid., 188.

<sup>86</sup> Apel, *Keyboard Music to 1700*, 195-196.

<sup>87</sup> José Subirá, *Historia de la música española e hispanoamericana* (Barcelona: Salvat Editores, 1953), 252.



appointed *músico de la cámara* to Charles V. It was through this association with the royal family that the composer, upon Isabella's death in 1539, was given the task of providing musical tutelage to Prince Philip and his siblings. This appointment would prove to be a fruitful one for Cabezón, who was given the opportunity to travel with Philip throughout Europe, visiting Italy, England, Germany and the Netherlands in the years spanning from 1548-1555.<sup>88</sup>

The *tientos* of Cabezón show great diversity in technique and scope. A total of 27 *tientos* by the composer are extant.<sup>89</sup> Though these works are found in a variety of modern publications, the extant pieces can be traced back to two different collections: 1) Luis Venegas de Henestrosa's, the *Libro de cifra nueva para tecla, harpa, y vihuela*, and 2) Cabezón's *opera Omnia*, entitled *Obras de música para tecla, harpa y vihuela* (see Figure 1-5 below), which was compiled posthumously by Cabezón's son, Hernando de Cabezón, and printed in 1578 in Madrid by Francisco Sánchez.<sup>90</sup>

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<sup>88</sup> Louis Jambou, "Cabezón," *Grove Music Online* (accessed 10 May 2014) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/04511pg1>.

<sup>89</sup> These 27 represent works that are *tientos* in both style and in title. Various other pieces, including canonic and free works bear a resemblance to *tientos* of the time and would greatly expand the number of compositions under consideration.

<sup>90</sup> Howell, "Paired Imitation," 392.

Figure 1-5. Title page of *Obras de música para tecla, harpa y vihuela* of Antonio de Cabezón, 1578.<sup>91</sup>



Cabezón's works are often viewed as the pinnacle of *tiento* writing in the sixteenth century; those found in the *Obras* and the *Libro de cifra nueva* do much to support this notion. Even Venegas de Henestrosa alludes to this in his title page for the *tientos*, stating that the following pieces are by "Antonio and other composers." Though the fundamental stylistic qualities of his *tientos* do not greatly vary from those of Bermudo, Santa María, and

<sup>91</sup> Hernando de Cabezón, ed., *Obras de música para tecla, arpa y vihuela* (Madrid: Francisco Sánchez, 1570). Available for download online via [http://javanese.imslp.info/files/imglnks/usimg/4/42/IMSLP68197-PMLP137700-Cabezón\\_Antonio\\_de\\_-\\_Obras\\_de\\_musica\\_para\\_tecla\\_arpa\\_y\\_vihuela.pdf](http://javanese.imslp.info/files/imglnks/usimg/4/42/IMSLP68197-PMLP137700-Cabezón_Antonio_de_-_Obras_de_musica_para_tecla_arpa_y_vihuela.pdf).

others (such as the myriad *tiento* composers represented in the *Libro de cifra nueva*), Cabezón's compositions possess a sophistication and complexity not found in his contemporaries. Indeed, he wrote *tientos* that have, in general, longer subjects, such as the five-measure subject found in the *Tiento del segundo tono* (Example 1-8 below), and a more thorough development of musical material. In addition, they often include a variety of other compositional techniques, including inversion, diminution, and augmentation of imitated materials, techniques which are less common in the compositions of other first-generation *tiento* composers.<sup>92</sup>

Example 1-8. Antonio de Cabezón, Long-note Subject, *Tiento del segundo tono*, mm. 1-19.<sup>93</sup>



The *tientos* by Cabezón that are not based on preexisting vocal models are almost indistinguishable from the *ricercar*. A majority of these are polythematic, though they are often limited to a principal and secondary theme. In these cases, the principal themes act as material for extending sections and may return as unifying units throughout the entire

<sup>92</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 32.

<sup>93</sup> Pedrell, *Hispaniae Schola Musica Sacra*, vol. 4, 46.

composition.<sup>94</sup> The primary themes generally consist of long note values, such as in the subject entrances of the *Tiento del cuarto tono*, found in Example 1-9. This is similar to the themes found in the Italian *ricercar*, with shorter note values (eighths and quarters) being used to ornament the theme, though exceptions to this do exist, as seen in Cabezón's *tiento del sexto tono* in Example 1-10 below).<sup>95</sup>

Example 1-9. Antonio de Cabezón, Long-note subject, *Tiento del cuarto tono*, mm. 1-24.<sup>96</sup>



The secondary themes act as material that links one section to another. In addition, Cabezón also employs the use of a common figure or shorter motive to connect different sections—a practice that is common to many *tiento* composers. Countersubjects, whether observed strictly or approximately, are also frequently found in these pieces.

<sup>94</sup> John Hughes, "The Tientos, Fugas, and Diferencias in Antonio de Cabezón's *Obras de música para tecla, harpa, y vihuela*" (Ph.D. diss., The Florida State University, 1961), 51-52.

<sup>95</sup> *Tiento del sexto tono*, mm. 1-16.

<sup>96</sup> Pedrell, *Hispaniae Schola Musica Sacra*, vol. 4, 49.

Example 1-10. Antonio de Cabezón, Short-note subject, *Tiento del sexto tono*, mm. 1-16.<sup>97</sup>

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Primera parte

As noted above, Cabezón uses a variety of compositional techniques, including inversion, augmentation, and diminution. In addition to these techniques, Cabezón also uses shifts in meter as a way of adding variety and musical interest. Most often his *tientos* begin in duple meter and shift to triple meter after the opening section, sometimes, though not always, returning to duple meter in the closing section of the composition. This too, is similar to many Italian *ricercari*. Cabezón also uses paired imitation, a technique frequently employed in both Spanish and Italian keyboard works at this time. This procedure is found in the initial exposition of the *Tiento del primer tono* (Example 1-11). *Stretto* is also used in some instances.<sup>98</sup>

<sup>97</sup> Ibid., 2.

<sup>98</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 52.

Example 1-11. Antonio de Cabezón, Paired Imitation in the Subject of the *Tiento del primer tono*, mm. 1-12.<sup>99</sup>



The link between the *tiento* and the *verso* is illustrated in some of Cabezón's works. In these cases, in lieu of using a preexisting vocal motet or other work as the basis for his *tientos*, Cabezón uses psalm tones. He employs the psalm tones in a variety of ways. He either uses the tone as the inspiration for the *tiento*'s themes, places the entire psalm tone into the composition (autonomously from the other themes), or uses parts of the psalm tone as motivic material; in this case, generally in smaller units than the primary or secondary themes. The last of these is the most ambiguous method and it is often difficult to tell whether this was a conscious decision on the part of Cabezón or whether the motivic material only coincidentally bears a striking resemblance to the psalm tone.<sup>100</sup>

The structure of Cabezón's *tientos* is largely dependent on the number and treatment of the subjects, which range from two to seven. The subject material alternates with episodic material, which exists in numerous ways. It can be homophonic, contrapuntal, or figurative, but generally links sections that may or may not contain imitative material. According to Apel this technique can also be seen in the later music of

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<sup>99</sup> Pedrell, *Hispaniae Schola Musica Sacra*, vol. 7, 1.

<sup>100</sup> William Young, "Keyboard Music to 1600: II, *Musica Disciplina* 17 (1963), 183.

the English virginalists, Italian composers—such as Frescobaldi—and, most importantly, in the works of Jan Pieterszoon Sweelinck. This technique is a defining characteristic of Sweelinck's output. The final section of Cabezón *tientos* may present new material or brings back the primary subject, and may be either figurative or homophonic.<sup>101</sup>

The output of Antonio de Cabezón represents one of the largest extant collections of *tientos* by any Iberian composer. These pieces show a certain degree of standardization in form and style. For example, the 14 *tientos* contained in Venegas's *Libro de cifra* are strikingly similar to sixteenth-century vocal music in that the primary themes appear entirely in long note values: mostly whole and half notes, with occasional quarter and eighths. Though Cabezón's *tientos* contain anywhere from two to seven subjects, the average *tiento* includes only three or four, with the first subject being the most important; its material is frequently used throughout the composition. The secondary subjects are often shorter and Cabezón frequently derived their material from stock motives. The degree to which all secondary subjects recur throughout a piece depends the individual composition and varies greatly.<sup>102</sup> Most of Cabezón's *tientos* contain long sections that are non-imitative. Though these may feature brief imitative gestures, they are generally evanescent and show little connection with the primary musical material. Cabezón's *tientos* are a captivating mixture of contrapuntal, imitative, and free material that truly defines and epitomizes the *tiento* of the sixteenth century.<sup>103</sup>

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<sup>101</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 62.

<sup>102</sup> Apel, *Keyboard Music to 1700*, 188-189.

<sup>103</sup> Ibid.

Stephan Schmitt makes a case for a didactic reading—and playing—of Hernando de Cabezón's publication of his father's works. According to Schmitt, the *Obras*, similar to Correa de Arauxo's *Facultad orgánica*, is a collection that not only serves to show the diverse output of the composer, but also functions as a pedagogical collection in that the pieces are ordered by increasing difficulty from easiest to most challenging, unlike many of the earlier *vihuela* and keyboard collections that include *tientos*.<sup>104</sup>

López-Calo points out that Antonio de Cabezón's output differs from other composers of the time in one other very important way: as a blind composer, Cabezón had to work out and, indeed, record his works in a very different fashion than composers who had their sight. In an age where improvisation was one of the building blocks of notated works (and, indeed, the free sections of a majority of his *tientos* attest to this), Cabezón no doubt had to go about this process in a calculated manner. He would have needed an assistant (in the case of the *Obras* it is assumed that this transcriber was his son, Hernando) to notate his compositions for him. No doubt this required the composer to stop and start a number of times while the transcriber wrote down his compositions, Cabezón's works may have been fully thought-out pieces in the composer's head. Schmitt states that this idea helps to disprove the myth that improvisers of the time were "spontaneously inspired."<sup>105</sup> It shows that musicians were working within a certain harmonic or motivic framework when improvising, as well as when composing. For Cabezón, above all others, it would have been necessary for the composition to be basically complete by the time of its notation (by

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<sup>104</sup> Stephan Schmitt, "Antonio de Cabezón y el comienzo de la música didáctica para tecla con valor artístico," *Anuario Musical* 66 (enero-diciembre 2011), 120.

<sup>105</sup> Ibid.



extrapolation, it also meant that the composer no doubt had a great memory).

Consequently, Schmitt concludes the following: “in the case of transcriptions of improvisations of a blind man, the transcription is always of a pre-composed work.”<sup>106</sup>

Cabezón truly represents the peak of Iberian *tiento* composition in the sixteenth century; indeed, he was one of the most noteworthy keyboard composer’s in the whole of Europe. Perhaps Cabezón’s work is best summed up by his son Hernando, in the preface to his *Obras de música*. He stated that although God deprived his father of his sight, in its place God “gave him a marvelous view of the soul, opening the eyes of understanding for him to master the great subtleties of this art and to arrive at a point no other mortal had reached.”<sup>107</sup>

### **Other Writings on the *Tiento***

Unfortunately, it is likely that many *tientos* and theoretical information regarding their composition have been lost over time. Though there are extant records claiming that other collections of *tientos* were published, there are few other sources that survive from the time of Cabezón’s *Obras de música para tecla, harpa y vihuela*, up to the turn of the seventeenth century. One other source is noteworthy in regards to the sixteenth-century *tiento*.

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<sup>106</sup> Ibid., 121-122.

<sup>107</sup> Parkins, “Spain and Portugal,” 313.

Pietro Cerone (1566-1625), in his *El Mellopeo y Maestro* (Naples, 1613), provides some information on how he believed a *tiento* for keyboard should be composed.<sup>108</sup> Though published in the first quarter of the seventeenth century, Cerone's treatise is worthy of mention in regard to sixteenth-century *tiento* writing, given that his compositional instructions adhere to the style of Spanish and Italian composers of that century. Indeed, he draws comparisons with the organ *ricercar* and cites as exemplars a variety of Italian composers of this genre. Interestingly, while Cerone cites a number of composers, including Jacques Buus (c 1500-1565), Luzzasco Luzzaschi (c 1545-1607), Claudio Merulo (1533-1604), and Annibale Padovano (1527-1575), it appears that he clearly viewed Spanish composers as lacking the same compositional mastery and maturity. For example, despite Cabezón's status as a famous composer of *tientos*, no mention is made of the illustrious composer.<sup>109</sup>

Enrique Alberto Arias asserts that something approaching musicology took root in the early seventeenth century with the significant treatises of theorists such as Cerone, Praetorius, Mersenne, and Kircher.<sup>110</sup> Through time their works, including Cerone's *El mellopeo y maestro*, provide illuminating insight into the philosophy of music during the early Baroque—as well as providing an understanding into history, development of genres and instruments, theoretical concepts, and a huge breadth of other topics.<sup>111</sup> Among these

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<sup>108</sup> Pietro Cerone, *El mellopeo y maestro* (Naples: Giovanni Battista Gargano & Lucrecio Nucci, 1613) <[http://imslp.org/wiki/El\\_mellopeo\\_y\\_maestro\\_\(Cerone,\\_Pietro\)](http://imslp.org/wiki/El_mellopeo_y_maestro_(Cerone,_Pietro))> (15 May 2014).

<sup>109</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 18.

<sup>110</sup> Despite this claim by Arias, it would take all of the seventeenth and much of the eighteenth centuries for there to be any real growth in the field of musicology.

<sup>111</sup> Enrique Alberto Arias, "Cerone as Historian," *Anuario Musical* 58 (2003), 88.

important authors, Cerone deserves some consideration here, as he writes about the compositional constructs of the *tiento*.

It is possible that Cerone gained exposure to Spanish music through his studies with Juan Verio, who was employed as chapelmaster to Margaret of Austria.<sup>112</sup> Cerone credits Verio with supplementing his musical studies and informing his approach to composition.<sup>113</sup> In 1592 he traveled to Sardinia (which, at that time, was under Spanish control) in order to seek another teacher. Here he studied with Anthoine de Loch of the Calgiari Cathedral in southern Sardinia.<sup>114</sup>

After one year, Cerone decided that the best way to absorb Spanish culture and music was to travel to Spain. Consequently, he undertook a pilgrimage to Santiago de Compostela, stopping at myriad cities along the way. He stated of his travels:

At this same time, I traveled through the diverse regions of these fortunate kingdoms of Spain. As men who are anxious to see everything do not rest, and the effort expended does not seem effort, when I arrived at a city, I did not rest until I spoke with the masters of music. Having gained much or little, I went to the book stores to see treatises on the art of music. I read them and took from them their flower and substance—all of which serves in the present treatise.<sup>115</sup>

In 1603, Cerone left Spain and returned to Italy where he became a priest and a singer at the church of SS. Annunziate in Naples. It was at this time that he worked on *El melopeo y maestro*, eventually publishing it in the same city. Given that Naples was under

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<sup>112</sup> Verio, who is most likely the composer Joanne Verius (fl c 1560-86), was actually Flemish. See Howard Mayer Brown and Kristine Forney, "Verius, Joanne," *Grove Music Online* (accessed 2 May 2014) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/29212>.

<sup>113</sup> Cynthia J. Cyrus, et. al., *Music Education in the Middle Ages and the Renaissance* (Bloomington: Indiana University Press, 2010), 332.

<sup>114</sup> Arias, "Cerone as Historian," 89.

<sup>115</sup> Ibid., 90.

Spanish rule at this time, it is not surprising that Cerone chose to write *El melopeo y maestro* in Spanish. It seems that he may have had an ulterior motive. Despite his decade in Spain, he remained infinitely more impressed with the state of Italian cultural and musical life; one of his main goals with *El melopeo y maestro* was to help improve musical education in the Spanish Empire.<sup>116</sup>

Cerone had some very definite ideas about how *tientos* should be composed. According to him, a “proper” *tiento* would employ the use of a long-note theme. Despite his failure to mention Cabezón, it would appear that it was this style of *tiento* that Cerone found the most appealing. In addition, he states that a *tiento* should only begin with one voice, unless it is possible for the composer to write two voices employing two different themes at the same time, a technique that Cerone suggests is a good one. In providing counterpoint for this theme, each of the following voices should be distinguishable from one another. He had a preference for monothematic works that are contrapuntal and imitative.<sup>117</sup> Themes should be repeated a number of times and, if monothematic, the composer is advised to create interest through rhythmic variation of the theme and its accompanimental material.<sup>118</sup> Cerone does away with *glosas* and the general use of preexisting vocal compositions as the basis for keyboard works. This goes against general trends in *tiento* writing of the time; as a result, based on Cerone’s personal preferences and

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<sup>116</sup> Ibid.

<sup>117</sup> Louis Jambou, *Les origines du tiento* (diss., Paris: Edition du Centre National de la Recherche Scientifique, 1982), 24.

<sup>118</sup> Robert Stevenson, “*El Melopeo Tractado de Musica Theorica y Practica* by Pedro Cerone,” *Journal of the American Musicological Society* 24/3 (Autumn 1971), 483.

definition of the genre, he ignores many important *tientos*.<sup>119</sup> In this same vein, Cerone advises that *tiento* composers write in a style that is idiomatic to keyboard instruments. He states that the *tientos* “are not to be sung even if they have beautiful themes and a great deal of interesting traits.” Though he discouraged the intabulation of vocal pieces, he stated that the cadences used in keyboard *tientos* should “not differ from those used in polyphonic masses and motets; they ought to be chosen according to the mode of the pieces.”<sup>120</sup>

Unfortunately, Cerone had little to nothing to say about Spanish composers, even in regards to the *tiento*. He states that composers such as Andrea Gabrieli, Claudio de Corregio, Luzzasco Luzzaschi, and Gioseffo Ascani are highly skilled in the art of composing *ricercari* and *tientos*, as well as a variety of other genres of keyboard or organ works.<sup>121</sup>

## **Cifra Notation**

Approaching sixteenth-century Spanish keyboard and vihuela manuscripts and publications can be a daunting task due to the use of a wide variety of notational systems. Consequently, a brief overview of these practices bears mention.<sup>122</sup> Indeed, the number and diversity of these notational systems during the Renaissance and Baroque led German theorist and organist Claudius Sebastiani, in his *Bellum musicale* of 1563, to write of the

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<sup>119</sup> Jambou, *Les origines du tiento*, 25.

<sup>120</sup> Merino, “The Keyboard Tiento in Spain and Portugal,” 20.

<sup>121</sup> Cerone, *El Melopeo*, 101.

<sup>122</sup> For a detailed account of the notational systems employed in Europe during the time periods under consideration in this document see: Melissa K. Moll, “A Performer’s Guide to Keyboard Notation from the Middle Ages to the Beginning of the Baroque” (D.M.A. diss., The University of Iowa, 2006).

multiplicity of systems as a musical war in which four military captains crusaded for their own personal favorites. He stated:

and the aforementioned captains were assigned to the three companies of tablatures, that is, of notes, of letters, and of Arabic numbers. In the first were counted expert instrumentalists, the organist of the Italian and the French lands with their composers, who were writing their tablatures with musical notes. In the second company were the lutenists of nearly all of Germany, Italy, Spain, etc., since they were forming their tablatures with numbers and letters. The others, combining all the marks, joined notes, letters, and arithmetic numbers in one and the same tablature, so that they were judged to be harder to understand and were held of more perspicacious wit by the common people.<sup>123</sup>

From the fourteenth century onward, keyboard composers throughout Europe developed and made use of myriad notational systems to record their compositions. Some were little used by anyone other than the composers who developed them. Others developed along national—or even regional—lines. German composers most often employed a system using letters or a mixture of letters and notes. In the late sixteenth century, Italian instrumental composers, as well as French and English composers who, most often, followed Italian musical trends, frequently used staff notation employing notes and lines. At the same time, Spanish composers almost exclusively adopted some form of *cifra* (number) notation, a system based on lines and numbers, in lieu of notes. Sebastiani's "notation war" would continue until conventional staff notation became popular in the seventeenth century; ultimately, the Italians (with the French and English following suit), would win the war. However, before this, *cifra* firmly took root throughout the Iberian Peninsula and dominated notational practice there for almost three centuries.<sup>124</sup>

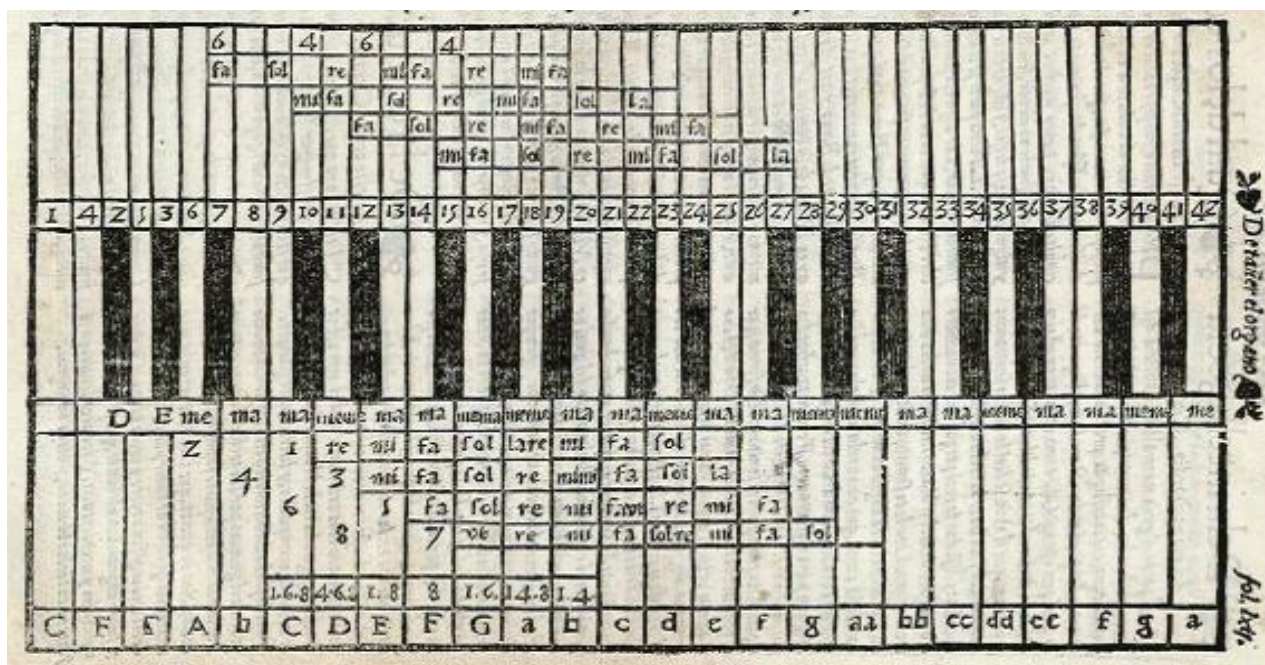
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<sup>123</sup> Cladius Sebastiani, *Bellum musicales*, quoted and translated in Jesse Ann Owens, *Composers at Work: The Craft of Musical Composition 1450-1600* (Oxford: Oxford University Press, 1997), 46.

<sup>124</sup> Moll, "A Performer's Guide to Keyboard Notation," 1-2.

By the mid-sixteenth century, various *cifra* systems had most likely been in use for some time. One of the first mentions of *cifra* in a published source can be found in Juan Bermudo's *Declaración de instrumentos musicales* in 1555.<sup>125</sup> Bermudo writes of two *cifra* systems, both of which he may have devised himself. The first system assigned one number to each key of the organ keyboard, 1 to 42, given the usual keyboard compass of the time (see Figure 1-6 below).

Figure 1-6. Numbering of Scale Degrees for *Cifra* Notation in Juan Bermudo's *Declaración de instrumentos musicales*, 1555.<sup>126</sup>



<sup>125</sup> Thurston Dart, et al. "Tablature." *Grove Music Online* (accessed 1 May 2014)  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/27338>.

<sup>126</sup> Bermudo, *Declaración de los instrumentos musicales*, lxi. The lowest five keys are labeled in ascending order with the numerals 1, 4, 2, 5, and 3. This denotes the presence of a short octave in which F# sounds as D, G# sounds as E, and F and G sound at their designated pitches.

These numbers were spaced on lines of the staff that represented the different voices of a composition. This system did not allow for changes in rhythm or the notation of complex textures. Figure 1-7 shows Bermudo's realization of this system. Note that the passage consists only of half notes and lacks any of the rhythmic variety that would have been necessary for the proper notation of most organ music.

Figure 1-7. Realization of *Cifra* System Employing 42 Numbers in Juan Bermudo's *Declaración de instrumentos musicales*, 1555.<sup>127</sup>



The second method developed by Bermudo also ascribed numbers to notes of the keyboard but, in this case, decreased the number to 23, starting with 1 for the short octave *E* and going up to number 23 (*f''*).<sup>128</sup> Black keys were notated simply with sharp signs above the corresponding white-key number, and ornaments were depicted by a *t* above the

<sup>127</sup> Ibid., liii.

<sup>128</sup> See page 75 for an explanation of the short octave.



note in question. Unlike Bermudo's first system, wherein staff lines indicated voice parts, in this approach parts were designated for right hand or left hand by placing numbers above and below a horizontal line. Also unique to this second system was Bermudo's inclusion of note values above the numbers. Both of these practices had limitations and were, ultimately, difficult to both use and read; as a result, they were probably not used outside of Bermudo's own publications or, at the very most, those of his immediate circle.

Though Alonso Mudarra's *Tres libros de música en cifra para vihuela* (1546) was primarily for *vihuela*, he also included one piece for organ or harp. This piece, his *Tiento IX*, is found at the end of the third and final book of the collection. However, unlike later collections using the most common form of Spanish *cifra*, Mudarra uses a different type of *cifra* in which 14 lines and 15 spaces represent the number of diatonic strings of a harp or the 29 white keys of the typical organ of this time period (Figure 1-8).<sup>129</sup>

It appears that this method of notation was an invention of Mudarra's, who stated that he was prepared to publish another collection of *fantasías* and other pieces written in his new *cifra*. According to Mudarra, the organ or harp piece found in his first publication was to be the first piece of his new publication; unfortunately, no record exists that this collection was ever published and, consequently, Mudarra's new method of 14-line notation never gained popularity; in fact, there is no evidence that this style of *cifra* was ever used by *any* other composers in Spain or elsewhere.<sup>130</sup>

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<sup>129</sup> Bordas, "The Double Harp in Spain," 149.

<sup>130</sup> It should be noted that it was not uncommon for composers to develop their own methods of notation. Though a few particular styles of notation became exceedingly common throughout the Iberian Peninsula (and, for that matter, the rest of Western Europe) during the mid- to late-sixteenth and early-seventeenth centuries, many composers found it just as easy to adapt their own approaches to their individual output. This can be seen in the unique notational systems of Italian composers such as Diruta and Frescobaldi, using as many lines and spaces as they saw fit for their compositions, with the exception that they employed the use

Figure 1-8. *Cifras para harpa y órgano* in Mudarra's *Tres libros de música en cifra para vihuela*, 1546.<sup>131</sup>



*Cifra* notation systems differed depending on whether a composition was for *vihuela* or *tecla*. Spanish lute tablature of the mid-sixteenth century bore a striking resemblance to the type that was being used in Italy at the same time. The most common lute *cifra* consisted on six staff lines, which corresponded to the six courses of the instrument. Numbers or letters placed on specific staff lines indicated to the performer on which fret the finger should be positioned.<sup>132</sup>

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of actual notes in lieu of the numbers that were common in Spain. Mudarra, who had travelled to Italy, may have been influenced by these notational systems.

<sup>131</sup> Mudarra, *Tres libros*, 228. Available online via the Biblioteca Nacional de España at <http://bdh.bne.es/bne/search/CompleteSearch.do?field=autor&text=Mudarra%2c+Alonso>.

<sup>132</sup> Willi Apel, "Early Spanish Music for Lute and Keyboard Instruments," *The Musical Quarterly* 20/3 (July 1934), 292.

The polyphonic nature of keyboard and harp music meant that notation systems developed for keyboard pieces were often, out of necessity, more complicated.<sup>133</sup> Like the *cifra* employed in lute music of the time the notation for keyboard music also used staff lines and numbers. However, in keyboard *cifra*, the lines and numbers denoted different things. The lines did not signify notes, but rather represented the different voices of a composition. For this reason, the keyboard *cifra* utilized in a majority of the compositions under investigation consist of between two and six lines, depending on the number of voice parts, with four, five, or six lines being the most common.<sup>134</sup>

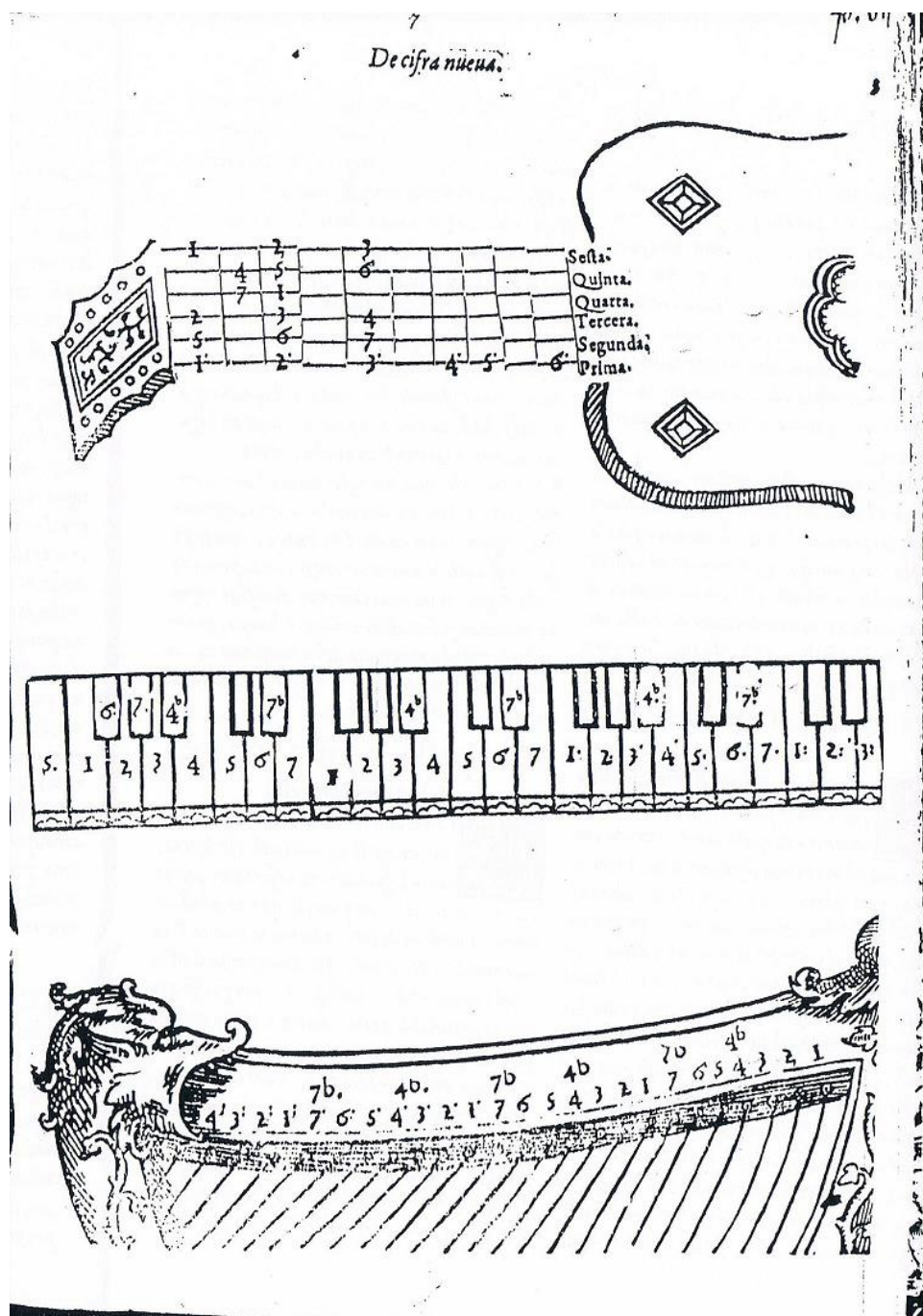
The first printed publication employing this style of *cifra* notation is Venegas de Henestrosa's *Libro de cifra nueva* (1557). The name of Venegas's collection implies that he may have been the first to develop this particular type of *cifra*, which would become the most popular in the Iberian Peninsula. The first section of the *Libro de cifra nueva* includes various explanations of the system and how it may be applied to pieces for keyboard, harp, and *vihuela* (as seen in Figure 1-9 below).

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<sup>133</sup> Lute music is also polyphonic, but the limited number of strings made lute tablature easier to read and realize.

<sup>134</sup> Apel, "Early Spanish Music," 293.

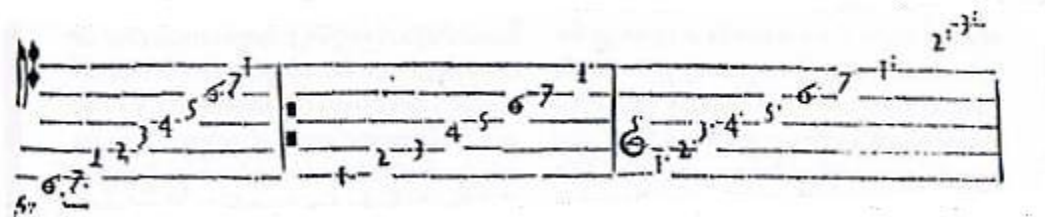
Figure 1-9. Illustration of *Cifra* systems for *vihuela*, *tecla*, and *harpa*, in Venegas de Henestrosa's *Libro de cifra nueva para tecla, vihuela, y harpa*, 1557.<sup>135</sup>



<sup>135</sup> Venegas de Henestrosa, *Libro de cifra nueva*, folio vii.

In Venegas's method, numbers are placed on the staff lines to indicate different notes. Numbers one to seven indicate the notes *f* to *e'*. Most composers recognized that while the entire compass of the keyboard had to be accounted for, memorizing 42 or more different note designations would be rather difficult; consequently, the numbers used in this type of *cifra* notation and its slight adaptations never exceeded seven. Notes that are to be played in a lower octave are accompanied by one or two dashes, and those to be played in a higher octave are supplemented with a dot or comma. Venegas's particular distribution of notes on the staff is provided in Figure 1-10 below, with an example of the composer's application of the system in found in Figure 1-11. Chromatic notes are notated with accidentals where appropriate. The upper staff line of the *cifra* represents the soprano voice, the lowest represents the bass voice, and other, interior lines represent inner voices, which varied in number depending on the particular composition. Individual measures were divided by vertical lines called *virgulas*.<sup>136</sup>

Figure 1-10. Notation of Registers in *Cifra* Notation in Venegas de Henestrosa's *Libro de cifra nueva para tecla, vihuela, y harpa*, 1557.<sup>137</sup>



<sup>136</sup> Nelly Van Ree Bernard, *Interpretation of 16<sup>th</sup>-Century Iberian Music on the Clavichord* (Buren: Frits Knuf Publishers, 1989), 4.

<sup>137</sup> Venegas de Henestrosa, *Libro de cifra nueva*, folio v.



Figure 1-11. Realization of *Cifra* to Staff Notation in Venegas de Henestrosa's *Libro de cifra nueva para tecla, vihuela, y harpa*, 1557.<sup>138</sup>

Rhythm was specified by the number of figures in a given measure and by placing notes of different values above the staff. Often, when a passage contained many notes of the same rhythmic value, only one note of that particular value would be placed above the staff and it would be assumed by the performer that the note value was to remain the same until another appeared.

Despite the detailed instructions left by many composers and theorists, the interpretation of *cifra* frequently involves making certain assumptions. For instance, a measure that contains one number indication but no rhythmic value above the staff could be interpreted as a whole note, whereas two note numbers spaced evenly in a measure

<sup>138</sup> Ibid.

could be interpreted as two half notes. Also, since a majority of Spanish Renaissance and Baroque organ compositions include sections with extensive imitation, once a rhythmic value is given above a staff, often it is unnecessary to keep providing this information.<sup>139</sup>

Overall, this form of organ tablature appears to be easy to interpret, especially in comparison with the seemingly more complex systems of tablature developed by Bermudo in Spain, as well as those cultivated in Germany. It was also no doubt much easier to read than the separate part books that were commonly used throughout Europe during this time period. Though the ability to read these separate part books would no doubt cause the modern-day organist at least a small level of anxiety, it was a skill that any competent sixteenth or seventeenth century organist would have possessed.<sup>140</sup>

Spanish *cifra* was compatible with the contrapuntal organ compositions coming out of sixteenth- and seventeenth-century Spain. Slight variances in this system can be found in the writings of individual composers; however, this basic system of notation was common and used in several of the earliest manuscript and printed editions of various composers, including those mentioned above: Hernando de Cabezón's publication of his father's *Obras*,<sup>141</sup> Correa de Arauxo's *Facultad orgánica* (one of the last to use this system), and some Portuguese and Mexican sources.<sup>142</sup>

Correa de Arauxo was obviously a proponent of this particular form of organ tablature, not only because he employed it for all of his compositions, but also because his

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<sup>139</sup> Santiago Kastner, trans., *Facultad orgánica* (Madrid: Union Musical Española, 1948), 32.

<sup>140</sup> For more information on this subject, see Apel, *Keyboard Music to 1700*, 5.

<sup>141</sup> Dalton, "Iberian Organ Music," 170-171.

<sup>142</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 31-32.

preface includes a section entitled *Prologo en alabanca de la cifra* (Prologue in Praise of *Cifra*) in which he supports his decision to use this specific type of notation:

This new mode of writing, called *cifra*, was used in the beginning in several ways: sometimes with letters of the alphabet, sometimes with numbers and Spanish words with different accidentals and signs. Because this type of *cifra* did not have the ease and certainty which was intended, it was totally abandoned, until the ingenuity of our Spaniards invented this genus of *cifra* which we have today. This new type of *cifra*, in which we find the present practical music of this book notated, is so easy and also so perfect that there cannot be another which surpasses it.<sup>143</sup>

Despite the fact that Correa de Arauxo was a staunch proponent of this specific kind of tablature, the use of *cifra* notation of any type died out soon after *Facultad orgánica*'s 1626 publication. This may seem surprising given how well-matched this system was to the literature coming out of Spain at this time. However, as musical styles began to change, the tablature could no longer adapt to or effectively support the new forms. For example, *cifra* was suitable for works that maintained a fairly constant texture throughout, but was inadequate for compositions that were more sectional and less imitative. This type of notation was typical throughout both the Iberian Peninsula and Italy until the early- to mid-seventeenth century, gradually falling out of favor when two- or more stave writing became customary.

## Summary

The Spanish *tiento* took root in the first half of the sixteenth century as a loosely-conceived genre for *vihuela*, harp, and ensembles, which showed marked similarities to the

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<sup>143</sup> Kastner, *Facultad orgánica*, 6.



*fantasia* and *ricercar*. In its earliest form, the *tiento* was a piece, often limited in scope and development, which was intended to allow the performer to test the instrument at hand, as well as the player's own abilities. They could consist of simple vocal intabulations with varying degrees of elaboration and ornamentation or free-form pieces that included a significant amount of virtuosic flourishes. These pieces could take on myriad structures and formal layouts, but in general alternated between imitative sections and those that were more freely-improvised. In addition, they could serve as introductory pieces to *fantasías*, such as those by Mudarra, or be self-contained and highly developed, stand-alone pieces, such as those by Milán.

The keyboard *tiento* began to develop at approximately the same time as the *vihuela tiento*, and by the end of the sixteenth century the organ *tiento* was one of the most prolifically-composed genres in Spain. Much like the *vihuela tiento*, the keyboard *tiento* went from a generic connotation for a *ricercar*-like composition, to a playground for complex and mature compositional possibilities by the most important of sixteenth-century Spanish organ composers. The compositions of Bermudo, those represented in Venegas de Henestrosa's extensive anthology, and a few other Iberian writers would culminate in the works of Antonio de Cabezón. A second generation of *tiento* composers who would exploit the expanding capabilities of the Iberian organ and bring a new level of popularity to the genre, as well as lead to the eventual development of new sub-genres, including the *tiento de medio registro*.

## Chapter 2

### History and Development of the Iberian Organ

#### Beginnings

The presence of an organ tradition in Spain can be traced back hundreds of years. Indeed, the first reference that scholars assume depicts an early organ can be found in a document from 972 describing the dedication of St. Benet-de-Bages Abbey in Catalonia.<sup>1</sup> Though most of these organs were built for providing notes for singers, early iconography—including illustrations of instruments in the *Cantigas de Santa María* from the court of King Alfonso X, dating from 1221-1294—show portative and other portable organs (*regales*), which imply their use in both secular and sacred settings.<sup>2</sup> Later documentation shows that organs were beginning to be installed as symbols of wealth and religious devotion in churches by the mid-thirteenth century,<sup>3</sup> with many organs appearing in the cathedrals in Catalonia from the mid-twelfth century onward, and in cathedrals and parish churches in Castile throughout the thirteenth and fourteenth centuries. As a result,

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<sup>1</sup> Calvert Johnson, ed., *Historical Organ Techniques and Repertoire, vol.1: Spain 1550-1830* (Boston: Wayne Leupold Editions, 1994), 6.

<sup>2</sup> Stephen Parkinson, ed., *Cobras e Son: Papers on the Text, Music, and Manuscripts of the 'Cantigas de Santa María'* (Oxford: The European Humanities Research Centre: University of Oxford, 2000), 219.

<sup>3</sup> Johnson, *Historical Organ Techniques: Spain*, 6. Johnson makes reference to a document stating that, in 1259, the donor of the organ at Barcelona Cathedral required the organist to maintain the newly-installed organ. Though this was often a standard component of organ contracts (a trend that continues to the present day), other, more interesting or unusual clauses of various types were often added to early organ contracts.

most sizeable Spanish churches had installed large, stationary instruments by the end of the fourteenth century.<sup>4</sup>

To understand the historical development of Spanish organ building and its repertoire, including (and perhaps especially) the *tiento de medio registro* and the *registro partido* keyboard on which these pieces were played, it is helpful to have an understanding of the general trends in Spanish organ building from the sixteenth through the eighteenth century and beyond, relying on a limited number of organ contracts (and, of course, the few extant examples of Spanish Baroque instruments) and church records. These same sources, in addition to a number of theoretical treatises, will also be helpful when examining the present-day registrational possibilities for the Spanish repertoire (to be discussed in Chapter 5).

### **General Characteristics of Early Spanish Organs**

Prior to the sixteenth century, Spanish organs shared many similarities with those being built throughout Europe; these early instruments had yet to include many of the national characteristics that would eventually come to epitomize a quintessentially Spanish pipe organ, which would start to be incorporated near the end of the fifteenth century; instead, they principally took the form of the early pan-European organ. Such an instrument consisted of an undivided *Blockwerk*, an organ with a single chest that is not capable of separating different timbres from one another; i.e. when the player plays middle

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<sup>4</sup> Kimberly Marshall, "The Organ in 14th-Century Spain," *Early Music* 20/4, Iberian Discoveries I (November 1992), 549.

C, all pipes on that note play simultaneously. Organs of this time ranged in size from small, handheld organs and slightly less mobile *realejos* and *regales* to larger, stationary instruments in parish churches and cathedrals. Even the largest instruments, such as those in Spain's grandest parish churches and cathedrals, boasted few characteristics that would have distinguished them from their European counterparts.<sup>5</sup>

The placement of organs within Spanish churches was similar to other European instruments, with few notable exceptions. The typical arrangement of organs in Spanish churches was to have two *coro* (choir) organs, one designated as the epistle organ and one as the gospel organ. These instruments were positioned in the arches between the choir stalls in the chancel, the enclosed part of the church allocated for the choir and clergy.<sup>6</sup> In addition, these organs were often free-standing; they had no walls on the "backs" of the organs so that both organs had façade pipes (and, eventually horizontal reeds) facing both the choir and the side aisles of the church.<sup>7</sup>

A few additional generalizations can be made about early Spanish instruments and their parallels, as well as their dissimilarities, to other European instruments. From their earliest inception, Spanish organs were comprised, in general, of only one manual. A pedalboard, if it existed, would have been limited to an octave or less; in organs where there were no independent pedal registers, a set of pull-downs from the manual was

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<sup>5</sup> Robert Parkins, "Spain and Portugal," in *Keyboard Music Before 1700*, ed. Alexander Silbiger (New York: Schirmer Books, 1995, 312-359), 301.

<sup>6</sup> Barbara Owen, *et al.*, "Organ," *Grove Music Online* (accessed 7 November 2013) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/44010pg5>.

<sup>7</sup> Joanne Althouse, "José Elías (c 1678-1755) and Late Baroque Organ Music in Spain" (Ph.D. diss., University of California, Los Angeles, 1998), 15. It should be noted that, while these free-standing organs did catch on in the rest of Europe, as well as areas of the New World, Spain was one of the few places to adopt both a front and rear façade.

common. The bellows were generally multifold and required a *calcant*, a person whose job it was to pump the bellows whenever the instrument was to be played. Slider-chests were the norm and wind pressure was usually low: approximately 50-60mm, though it could, on occasion, be up to 90mm on larger-scale instruments.<sup>8</sup>

Interestingly, unlike the instruments throughout the rest of Western Europe and, later, in certain areas of the New World, the size of Spanish organs was not necessarily based on the size of the space in which it was being installed. The organs built in Spain were, to a very large extent, similar in size; cathedral instruments were often not much bigger than parish church organs. The size of the casework was often misleading, however, as cathedral organs often appeared strikingly larger due to the installation of “dummy” pipes.<sup>9</sup> These pipes, found in the façade of an organ, were inactive and only for show. They did, however, have ramifications for the sound. The large casework needed to contain the idle pipes helped to absorb upper partials and contributed to the gentle tone quality of Spanish instruments. This type of organ constituted the norm until well into the sixteenth century, though in areas where new trends were slow to catch on it would take until the seventeenth century for more progressive features to be incorporated.

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<sup>8</sup> Low wind pressure was common in both early French and Italian organs. In organ building wind pressure is measured not with the usual measurement of pounds per square inch, but rather by inches of displaced water. A *manometer*, the tool most often used to indicate wind pressure in organs, consists of an s-shaped glass tube approximately a half inch in diameter with a pipe foot mechanism on one end. Water is placed in the crook of the tube. The foot of the tubing is placed into a toe hole of a removed pipe. The corresponding key is depressed and the rush of wind displaces the water. The pressure is found by reading the difference in heights of the column of water. For more information regarding wind pressure see: John R. Shannon, *Understanding the Pipe Organ: A Guide for Students, Teachers and Lovers of the Instrument* (Jefferson, North Carolina: McFarland, 2009), 14.

<sup>9</sup> <[http://www.organartmedia.com/downloads/Historic\\_Spanish\\_organs.pdf](http://www.organartmedia.com/downloads/Historic_Spanish_organs.pdf)> (accessed 30 June 2013).

## History and Development of Spanish Organs from the Sixteenth to Eighteenth Centuries

Like those found in France, Italy, and Germany, the organs in Spain developed through a variety of cross-cultural influences, but also exhibited characteristics that were unique to the Iberian school of organ building. The exchange of organ building trends to and from Spain is integrally tied with the history of the Spanish monarchy and the resultant movement of musicians and organ builders into and out of Spain. Jambou's seminal work on the history of the evolution of the organ in Spain outlines the importance of the integration of the Kingdom of Navarre into the lands of the Spanish crown, helping to define the geographical boundaries of Spain. In addition, the marriage of Isabella and Ferdinand in Segovia in 1469 laid the foundation for political unity in the kingdom and in 1580 Philip II used his rights of succession to unite Portugal to the territories of his now vast empire.<sup>10</sup> The resultant geography of the Iberian Peninsula provided nothing but the illusion of unification, however, and for the next two centuries the peninsula was made up of a variety of changing territories and kingdoms, each frequently holding steadfast to their ingrained traditions, laws, and cultural nuances.<sup>11</sup> The two crowns, those of Castile and Aragon, retained their own liberties and separate political institutions, and the resultant multitude of regional and cultural divisions became an important breeding ground for the development of organ building trends based on geographic location.<sup>12</sup>

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<sup>10</sup> Louis Jambou, *Evolución del órgano español: Siglos XVI-XVIII*, vol. 3 (Universidad de Oviedo, Servicio de Publicaciones, 1988), 3.

<sup>11</sup> William D. Phillips, Jr. and Carla Rahn Phillips, *A Concise History of Spain* (Cambridge: Cambridge University Press, 2010), 116-117.

<sup>12</sup> Jambou, *Evolución del órgano español*, 4.

The Castile region was the more expansive of the two areas, including in its realm the territories of Galicia, the Basque area, Navarre, León, Castile, Andalusia, and Murcia. At the turn of the seventeenth century it was populated by approximately 11.5 million people and its territories occupied about three-quarters of the peninsula.<sup>13</sup> From the sixteenth century onward, Castile represented Spanish power and economic, political, and cultural prosperity. Though the various territories showed little uniformity in culture or traditions (with the Basque area and Navarre being exceedingly different from the other regions), the overriding sentiment of growth, development, and colonization would be a binding tie for the Crown of Castile. This would extend to the area of organ building and be a driving force for new developments and trends in important city centers.<sup>14</sup>

The Crown of Aragon was made up of the kingdoms of Aragon, Valencia, and Catalonia, along with the Balearic Islands. Within these kingdoms were the important cities of Barcelona, Valencia, and Zaragoza. Musicians and musical ideas frequently moved from these cities and all would become important centers for organ building and composition.<sup>15</sup>

Despite the various internal boundaries, musicians, builders, and musical ideas moved, albeit often slowly, from one area to another. In general, trends moved from south to north, and progressive ideas were slower to catch on in Catalonia than in Castile.<sup>16</sup> The transference of organ building concepts was not strictly limited to these internal boundaries, but was also based on the accessibility of certain cultural and city centers. For

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<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid., 4.

<sup>16</sup> Ibid., 4-5.

example, Zaragoza's central location made it an easy access point for builders beyond the limits of Aragon. This stands in striking contrast to the two most important centers, Barcelona and Valencia. Despite fostering significant organ cultures, these coastal cities were less geographically prone to the importation and exportation of musical ideas and, thus, developed organs with characteristics and traits largely differing from other cities.<sup>17</sup>

Organ building in Spain was positioned around several important and distinctive cities. Madrid became one of the most important hubs of organ building and composition in the late sixteenth century when Philip II's court relocated from Toledo to this rather unknown city in 1561.<sup>18</sup> Toledo, the home of the Archbishop of Spain, remained an important center, and several wonderful instruments were installed there throughout the sixteenth and seventeenth centuries. In addition, the important pilgrimage site of Santiago de Compostela, as well as Seville, Granada, and Málaga, would all become significant organ-building cities.<sup>19</sup>

Consequently, the division of the Iberian Peninsula into the kingdoms of Castile and Aragon was essential in defining the styles of organ building in Spain, and this grouping will highlight the two main styles of organ building from the sixteenth through the beginning of the eighteenth century. At least superficially, organ building in the Iberian Peninsula can be divided into the Catalan School and the Castilian School. Though, like politics and culture, organ building and composition could vary widely even from one city to the next, and the

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<sup>17</sup> Ibid., 15.

<sup>18</sup> Andrew W. Keitt, *Inventing the Sacred: Imposture, Inquisition, and the Boundaries of the Supernatural in Golden Age Spain* (Leiden, The Netherlands: Koninklijke Brill, 2005), 36.

<sup>19</sup> Norma Jean Stevlingson, "The Stylistic Development of the Tiento on the Iberian Peninsula from Cabezón to Cabanilles" (D.M.A. Lecture Recital, North Texas State University, 1974), 29-30.



two areas would develop two different ways of designing and manufacturing instruments.<sup>20</sup>

### The Sixteenth-Century Spanish Organ

From its archaic, *Blockwerk* roots, the Spanish organ experienced gradual, but progressive changes from the beginning of the sixteenth century onwards. It was at this time that organ building in the Iberian Peninsula began to differ from that in the rest of Western Europe, and also sought to “catch up” to many of the innovations occurring elsewhere—particularly in Germany and the Netherlands.<sup>21</sup> For example, Spanish builders quickly espoused current Dutch trends in voicing, typified by low wind pressure, open toe voicing (in contrast to the closed toe voicing popular in France), and little or no nicking of pipe languids. In addition, cases, chests, and pipes were often made of Flemish oak.<sup>22</sup> Changes in organ craftsmanship and the development of new mechanisms and technologies changed the ways organs were being made; the invention of stop controls led to the dissolution of the *Blockwerk* and the incorporation of new, colorful solo stops, toy and accessory stops, as well as the introduction of the *tremulant* sometime before midcentury. In addition, the vast wealth of the royal family, nobility, and the Roman Catholic Church

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<sup>20</sup> John R. Shannon, *The Evolution of Organ Music in the 17<sup>th</sup> Century: A Study of European Styles* (Jefferson, NC: McFarland, 2012), 120.

<sup>21</sup> James Wyly, “The Pre-Romantic Spanish Organ: Its Structure, Literature, and Use in Performance” (D.M.A. diss., University of Missouri at Kansas City, 1964), 21.

<sup>22</sup> *Ibid.*, 25.

contributed to the building and installation of many new organs in large cathedrals, as well as in smaller *parroquias* (parish churches).

The construction of instruments at this time followed some general guidelines. The small, one-manual instrument still reigned in central Spain, while larger, two-manual organs were becoming popular in the northern areas.<sup>23</sup>

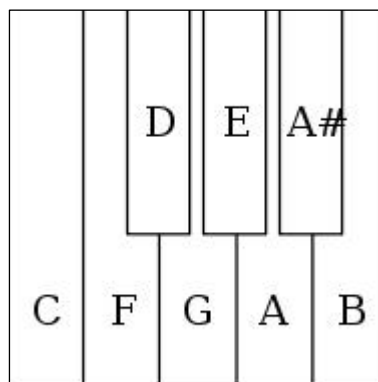
Most organs from the sixteenth to the early nineteenth centuries were built to include a short octave, a procedure in which the lowest notes of the manual were tuned to pitches other than what would be expected from their placement on the keyboard; this allowed for an extended keyboard compass without changes to the size of the instrument.

Various types of short octaves have been developed throughout the history of Western music, but the short octave of the Spanish Baroque was usually of one particular type. Here, the lowest note on the organ keyboard appeared to be an *E*, but the key was tuned to sound a *C* instead. *F-sharp* was tuned as a *D*, and *G-sharp* was tuned as an *E*. Thus, if a performer wanted to play a C-major scale starting on the lowest *C* of the organ keyboard, he or she would actually have to play the following notes: *E, F-sharp, G-sharp, F, G, A, B*, and *C*—as is shown in Figure 2-1:

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<sup>23</sup> Barbara Owen, *The Registration of Baroque Organ Music* (Bloomington: Indiana University Press, 1999), 3.

Figure 2-1. Diagram of Notes in the Short Octave of a Spanish Baroque Organ.<sup>24</sup>



The resulting compass of most instruments was rarely greater than 45 notes, similar to those found in Italy. For example, most instruments in Castile, with the exception of the more sizeable instruments in the larger parish churches and cathedrals, were comprised of a single manual with a compass, utilizing a short octave, of *C/E-a''*.<sup>25</sup> These instruments generally contained ranks of mild principal stops known as *flautados*, along with a flute chorus and *nazardos* (mixtures). The *flautados* were general narrow-scaled pipes with narrow mouths and low cut-ups, factors that contributed to a gentle and singing quality.<sup>26</sup>

If the organ did contain a second manual division, it was generally in the form of a *cadireta*, a division similar to the Germanic *Rückpositiv*, found at the organist's back. An example of this arrangement can be seen in the large, Renaissance organ at Barcelona Cathedral (see Figure 2-2 below).<sup>27</sup> This manual was almost always based on a principal an

<sup>24</sup> Nicolaus Meeùs, "Short octave," *Grove Music Online* (accessed 1 December 2013) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/25663>>.

<sup>25</sup> The *C/E* designation indicates the presence of a short octave.

<sup>26</sup> Spanish principals were similar to those found in Italian organs of the same period.

<sup>27</sup> The organ was originally built in 1538; substantial restorations and repairs were conducted between 1985 and 1994.

octave higher than the lowest principal pitch of the *órgano mayor*. For example, in an instrument where the main manual was based on an 8' principal, the *cadireta* was based on the 4' pitch.

The pedal division of the sixteenth-century Spanish organ, if one existed at all, was most often comprised of only a coupled pedalboard, which “pulled down” the lowest octave of manual keys to the pedal. The pull-downs were sometimes supplemented with a rank of 16' flue pipes to help reinforce the bass at cadential points.<sup>28</sup> The compass of these pull-down pedalboards was usually only eight or ten notes. This type of construction made even the simplest pedal use difficult, and rendered the *cantus firmi* compositions of the northern European repertoire out of the question in Spain. Only rarely did organ builders incorporate independent pedal stops.<sup>29</sup> Most often, in these organs where the pedal was merely coupled, the pedals functioned as a “third hand” that allowed the organist to provide bass notes at cadence points or to play difficult passages more easily by “grabbing” manual notes with the pedal. Limited pedal boards would be the norm until the eighteenth century.<sup>30</sup>

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<sup>28</sup> Parkins, “Spain and Portugal,” 301.

<sup>29</sup> Miguel Bernal Ripoll, “Las contras de los órganos barrocos del país Valenciano. Reflexiones sobre su empleo en la música de Cabanilles,” *Revista de musicología* 19, 1/2 (enero-diciembre, 1996), 134. This trend of using pull-downs in lieu of independent pedal stops would continue into the late seventeenth and early eighteenth centuries.

<sup>30</sup> Owen, *The Registration of Baroque Organ Music*, 19.

Figure 2-2. Façade of the *Órgano mayor* and *Cadireta* of the Barcelona Cathedral Organ (Barcelona, Spain), 1537-1539.<sup>31</sup>



<sup>31</sup> Photo courtesy of Emma Whitten.

The division of the *lleno*, the principal chorus, into independent stops was made possible by advances in windchest construction. These changes allowed the large, undivided mixture found in early organs to be broken up into smaller parts. This ability did not immediately lead to the decline of the *Blockwerk* model, but it did lead to striking changes in Iberian organs. These modifications were, however, late to come to the Iberian Peninsula; organs in France and Germany underwent such changes as early as the mid-fifteenth century, but were not introduced to Spanish and Portuguese organs before the sixteenth.<sup>32</sup>

As with many aspects of the development of the Spanish organ, the composition of the *lleno* varied depending on the geographic location of the instrument. Northern organs usually maintained the undivided *Blockwerk* concept (perhaps with the higher-pitched ranks of the chorus grouped into mixtures), while instruments in the south often contained a wholly divided *lleno*, a construction that allowed greater manipulation and use of the principal mutations.<sup>33</sup> As the organ was further developed from its rudimentary origins, wide-scaled flute stops of a variety of pitches, often given the nomenclature *nazardos*, appeared alongside the *lleno* to provide a supplementary flue chorus. In addition to the *lleno*, the organs usually had a small selection of color stops, similar to those found in northern European organs: unison flutes, quints, and reeds (usually with short-length resonators).

It is likely that reed stops were introduced to some Iberian organs around the turn of the sixteenth century. Castilian builders were enthusiastic to add such stops, while

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<sup>32</sup> Wyly, "The Pre-Romantic Spanish Organ," 22-23.

<sup>33</sup> Owen, *The Registration of Baroque Organ*, 5.

Catalonian builders were slower to adopt reeds, a trend that would continue into the seventeenth century. These primitive reeds were usually *regales* (such as *gaitas*, *dulcayna*, *orlos*, *violetas*, or *regalías*), whose pipes were short and conical with open resonators. Full-length reeds, likely based on models from the Netherlands, were later in coming. *Regal* pipework occasionally appeared horizontally in organ cases in the sixteenth century, but it would take until after the mid-seventeenth century for this to become standard practice for the placement of full-length trumpets.<sup>34</sup>

In addition to differing preferences in regards to reeds, Castilian and Catalonian builders constructed instruments with pronounced stylistic differences. Castilian instruments contained numerous bright and colorful solo stops, a wide array of toy and accessory stops, and often more than one manual. Catalonian instruments, on the other hand, continued to be comprised of only one manual and were frequently smaller in scale than those found in Castile. Catalonian builders continued to adhere to the *lleno* model and to this principal chorus they added a small mixture, flute mutations, and perhaps one or two *regales*.<sup>35</sup>

As the second half of the sixteenth century approached, the Spanish organ reached a point of sophistication and refinement not found in Iberian instruments before this time. It is likely no coincidence that this growth in maturity is contemporaneous with the development of the *tiento* as a prevalent genre in Spanish keyboard composition. Two-manual instruments slowly grew in popularity and abundance as the tonal palette of organs continued to expand and new technologies were developed; by the second half of

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<sup>34</sup> Wyly, "The Pre-Romantic Spanish Organ," 23.

<sup>35</sup> Ibid., 24-25.

the sixteenth century they were standard. This was especially true of organs built by foreign organ builders, who were often Catholic builders and craftsmen who moved to Spain after the Protestant Reformation,<sup>36</sup> and introduced building concepts from France, Germany, and the Netherlands, countries where two-manual organs and expanded tonal palettes were already the norm.<sup>37</sup>

In general, the Spanish organ of the latter half of the sixteenth century consisted mostly of *flautado* (principals) and an abundance of mixtures, many containing upwards of five ranks, with mixtures of seven ranks or more being possible. As the century progressed, the *lleno* was supplemented by a large variety of flutes, reeds, and other color and solo stops.<sup>38</sup>

No doubt the most important innovation during the sixteenth century was the incorporation of the *registro partido*. In the mid-sixteenth century, single-manual organs with all or some stops divided between bass and treble began to appear in Flanders. This technique swiftly spread to England, northern France, and, most significantly, the Iberian Peninsula, and with it, an ability to increase the registrational capabilities of the instruments.<sup>39</sup> The origination, development, and importance of this innovation is thoroughly discussed in Chapter 3, but here it should be noted that the *registro partido* quickly took Spain by storm, and by the first half of the seventeenth century would be incorporated into both new and revised instruments by both foreign and Spanish builders.

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<sup>36</sup> Owen, *The Registration of Baroque Organ Music*, 31-32.

<sup>37</sup> Wily, "The Pre-Romantic Spanish Organ," 39.

<sup>38</sup> José López-Caló, *Historia de la música española: Siglo XVII*, vol. 3 (Madrid: Alianza Editorial, 1983), 125.

<sup>39</sup> David Baker, *The Organ* (Buckinghamshire, UK: Shire Publications Ltd., 2003), 40.



Along with the *registro partido*, the importance and inclusion of reed stops in Iberian organs also increased. Owing to their amplified significance, by the mid-sixteenth century reed stops were found under an ever-increasing variety of names in addition to the customary *trompeta* and *regal* designations, many of which were rather imaginative and often alluded to the stops' foreign origins. Examples of such stops include three particularly descriptive vertical reeds nomenclatures: the *clarín de galera*, *molt sonoroses* (gallery trumpet, very sonorous), the *clarín de mar* (trumpet of the sea), and the *trompeta natural a la tudesca* (German or Dutch trumpet stop with natural-length resonator). It is likely that such creative stop names would aid in the eventual development and overwhelming popularity of horizontal reed stops in the seventeenth century.<sup>40</sup>

Though lacking any of the artistically-named reed stops mentioned above, an extant stoplist from the late-sixteenth century instrument at Santa Cruz, Coimbra (see Table 2-1 below) is representative of the changes that occurred in sixteenth-century organ building. Despite the organ having only ten stops, it contains three reed stops and has an array of *medio registro* stops, including divided reed, mixture, and flute stops. It is representative of the type of organ that would have been found in late-sixteenth century Castile and parts of Portugal that had adopted the device.<sup>41</sup>

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<sup>40</sup> Owen, "Organ."

<sup>41</sup> Jon Burnett Holland, "Francisco Correa de Arauxo's *Facultad orgánica*: A Translation and Study of its Theoretical and Pedagogical Aspects" (D.M.A. diss., University of Oregon, 1985), 117.

Table 2-1. Specification of the Monastery of Santa Cruz Organ (Coimbra, Portugal).

<b>Manual:</b>
flautado 4'
tapado 8', divided
docena 2 2/3'
quincena 2'
decinovenia 1 1/3'
mistura III, divided
simbala III-IV, divided
trompeta bastarda 4', treble
trompeta bastarda 2', bass
dulcayna 8', treble

There were many important changes in organ building in sixteenth-century Spain that would eventually lead to the development of a national style, owing in part to the patronage and support of wealthy aristocracy and the power of the Roman Catholic Church. During this time the Spanish organ expanded from an early pan-European instrument to one that could be differentiated from its fellow Western European counterparts. Advances in organ building, such as stop controls, led to the incorporation of new types of solo and accessory stops. Despite these innovations, the standard Spanish organ continued to be a small-scale, one- or two-manual instrument with a relatively small compass and a limited pedalboard, usually consisting of manual pulldowns. Still, the organ of sixteenth-century

Spain gave rise to important changes and the foreshadowing of a truly Spanish instrument that would be fully realized in the seventeenth century.

### Spanish Organs in the Seventeenth Century

The growing importance of the organ in Spain throughout the seventeenth century can be observed through a “the more the merrier” toward organ installation. Though smaller *parroquias* may have only had the means to install one or, on rare occasions, two organs, it was not uncommon for churches to have numerous organs of a variety of sizes and placements.<sup>42</sup> Two rather extreme examples are Guadalupe Cathedral, which by 1650 had installed eight instruments, and the Cathedral of Seville, which by the late seventeenth century was said to have installed fourteen!<sup>43</sup>

The fervor with which the Spanish installed organs in the seventeenth century was no doubt linked to the notable advancements in organ building during the preceding century. The seventeenth century was a period of further refinement and several notable new building techniques were incorporated, including the installation of horizontal reeds and the *caja de ecos* (swell box).

Though a certain degree of homogeny was seen throughout Spain, changes in organ construction continued to be defined, in part, by geographical location. The distinct

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<sup>42</sup> Wyly, “The Pre-Romantic Spanish Organ,” 47. It should be noted, however, that while churches were frequently installing new organs during this time period, it is likely that most of these were small instruments. According to Wyly, there were probably not many large organs built during this period, because most large churches had at least one “more or less up-to-date” Renaissance instruments.

<sup>43</sup> Stevlingson, “The Stylistic Development of the Tiento,” 30.

regional styles in Catalonia and the Castilian style continued to broaden during the seventeenth century, with varying levels of unification and standardization over time. The abundant Castilian organs of the seventeenth century continued to be similar to their predecessors. Most consisted of a single manual divided at  $c'/c\sharp'$ . These types of instruments had numerous reed stops, including many types of trumpets.<sup>44</sup> By late in the century the compass was expanded to  $C/E-c'''$ . The pedal register, however, was not much further developed. Pull-downs continued to be common and 16' or 8' *contras* might be present in some instruments, although this continued to be the exception and not the norm.<sup>45</sup>

Contrary to the typical organs of southern Spain, the organs in Catalonia were generally comprised of two, undivided manuals. The two manuals frequently had different compasses, with the main keyboard extending to  $c'''$ , while the compass of the *cadireta* extended only from  $C-a''$ . The two manuals rarely included divided stops before the turn of the eighteenth century; even after this point it was more common to find the use of two manuals than the use of divided stops. In keeping with their sixteenth-century ancestors, these organs continued to be defined by an absence or, at the very least, a significantly lesser number of reeds than were found in Castilian organs.<sup>46</sup> The *trompeta real* and the treble *clarín* (interior reed stops at the 8' and 4' pitch, respectively) were found in some instruments.<sup>47</sup> The pedal division employed the use of the short octave and usually

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<sup>44</sup> Parkins, "Spain and Portugal," 303.

<sup>45</sup> Ibid., 303-304.

<sup>46</sup> Ibid., 303.

<sup>47</sup> One example of this was the 1693 instrument used by Juan Cabanilles in Valencia.

consisted of seven notes; as was usual in most Spanish instruments of the time, these were regularly coupled from the main manual division and may have had independent *contras* (a pedal stop) at the 16', and less regularly, the 8' pitch.<sup>48</sup>

New stops were frequently added to older instruments during renovations or rebuilds in both Castile and Catalonia during the seventeenth century. However, the *lleno* stops (usually built on the 8' pitch, but sometimes built on the 16' pitch) of older instruments were usually kept during these renovations. In addition to the greatly varied solo additions to the seventeenth-century Castilian organ, the addition of a solo *corneta* was frequent. The *corneta* was a wide-scaled *cornet* that could consist of up to seven ranks of pipes. With this addition came the installation of a new windchest, usually mounted and in a *caja de ecos* (swell box). This add-on allowed the performer greater volume control and possibilities, as implied by the name, for echo effects.<sup>49</sup>

Like organs in Castile, organs in Catalonia incorporated a variety of new stops, usually color stops, during the latter part of the seventeenth century. The *címbala* stop incorporated a tierce rank and new flute stops such as the *tierce* and the solo *corneta* became more common. Though the incorporation of new, color stops grew, the toy stops that were so prevalent in the sixteenth and the beginning of the seventeenth century began to diminish in importance.<sup>50</sup>

The timbral characteristics of both Castilian and Catalanian instruments were similar, despite their differing specifications. Iberian principals were generally of a

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<sup>48</sup> Johnson, *Historical Organ Techniques: Spain*, 16.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

narrower scale than those found in Northern European countries and the voicing was restrained. *Flautas* were also milder than their European counterparts.<sup>51</sup>

Aragon, located between Castile and Catalonia, produced instruments that were ambiguous in their constitution—many of which represented characteristics of both of its surrounding areas. This amalgamation of styles would continue and, indeed, spread to other areas of Spain and eventually Portugal throughout the seventeenth century.<sup>52</sup>

### Development of Horizontal Reeds

Though in the first half of the seventeenth century there were few crucial developments in Spanish organs, the second half would usher in an invention that would transform the organ in Spain and, resultantly, begin a new surge of notable organ building. This vital component was the incorporation of horizontal *trompetas* or *clarines* mounted in the façade of the organ, known as *lengüetería de la fachada* (horizontal façade reeds, commonly identified in French as *en chamade*).<sup>53</sup>

Similar to the development of the *registro partido*, horizontal reeds were first popular in and around Castile, and the new style slowly spread to other areas. By the onset of the eighteenth century, horizontal reeds (along with the *medio registro*) had become one of the most distinctive characteristics of the Iberian organ and could also be found in many New World instruments. The style was so fashionable that many parish churches and

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<sup>51</sup> Stevlingson, "The Stylistic Development of the Tiento," 34.

<sup>52</sup> Parkins, "Spain and Portugal," 303.

<sup>53</sup> Wyly, "The Pre-Romantic Spanish Organ," 54-55.

cathedrals either built new organs with horizontal trumpets, often putting in pairs of organs with trumpet batteries facing each other from both sides of the *coro*, or rebuilt or added such pipes to previously-installed instruments.<sup>54</sup>

The origins of the horizontal reeds in the façade are difficult to trace, but the justification for this inclusion is likely due to its decorative function as well as to sheer pragmatism. In a school of organ building where clarity and brilliance were prized and at the very forefront of organ design, the positioning of reeds in a horizontal position helped the reed pipes sound their most brilliant. By placing the pipes directly above the pallets at the front of the organ's soundboard, the pipes were fed with a steady and "lively" supply of wind—aiding in the clear and vivid sound that the Spanish so cherished.<sup>55</sup>

The placement of the horizontal reeds also made them accessible for tuning and upkeep. Reeds are always the pipes in need of the most tuning; placing them in a horizontal position meant that this was more easily accomplished. It also meant that these pipes could easily be cleaned. In addition, due to their horizontal arrangement they collected less dirt and grime (and likely the occasional mouse or bird) than their vertical counterparts.<sup>56</sup>

It is probable that the first reeds to be positioned in this manner were smaller *regales* such as *orlos*, *dulzaina*, and *gaitas* stops. One of the first mentions of a full-length trumpet stop (most often found under the nomenclature *trompeta* or *clarín*) to be placed horizontally in the organ's façade is made in 1659 by the renowned organ builder José de Echevarría in his organ at the Convent of San Diego de Alcalá de Henares in the Basque

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<sup>54</sup> Parkins, "Spain and Portugal," 303-304.

<sup>55</sup> [http://organartmedia.com/downloads/Historic\\_Spanish\\_organ.pdf](http://organartmedia.com/downloads/Historic_Spanish_organ.pdf) (accessed 30 June 2013).

<sup>56</sup> *Ibid.*

region. The contract for the organ built in 1677 for the church of San Juan Bautista of Mondragón contains one of the first documented citations of the horizontal *clarín*. On the subject Echevarría had this to say:

A register of great brilliance will be the treble half-stop of *clarines*, a stop which has been built in no organ except in the organ which I have now made in the convent of San Diego de Alcalá de Henares, and by its excellence it will be seen as great novelty . . . The [pipes] will be placed in the main cornice like cannons, which will beautify all the façade of the organ.<sup>57</sup>

Whether or not Echevarría was indeed the first builder to use a divided, horizontal *clarín* is difficult to discern given that most often the placement of the reeds is not specified in organ contracts and other documents of this time. It would take until the final years of the seventeenth century for the inclusion of this level of detail to be common and many reed stops of the same name could be placed either vertically or horizontally. Regardless of whether Echevarría can be accredited with developing the full-length horizontal reed, it is apparent that the builder held reeds in high regard.<sup>58</sup> His Alcalá organ exhibits this through the use of diverse reed stops, featuring, in addition to his horizontal *clarines*, a variety of other *regales* and vertical reeds, including *trompetas reales*, *dulzainas*, *orlos*, *trompeta mayor*, *bajoncillos*, *voz humanas*, and *angeles o serafines* (angels and seraphims). Of these, Echevarría states the *trompeta mayor* and *bajoncillos* are fairly new, though he does not take personal credit for their invention.<sup>59</sup>

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<sup>57</sup> James Wyly, "Historical Notes on Spanish Façade Trumpets," *The Organ Yearbook* viii (1977), 41. Translation by Wyly. Original quote can be found in: Padre J.A. de Donostía, *Música y músicos en el país vasco* (San Sebastián: Biblioteca Vascongada, 1951).

<sup>58</sup> Wyly states that it is indeed possible, if not probable, that Echevarría was the first to employ the use of full-length *clarines* in his organs. Though there is not proof of this, Wyly contends that the *clarines* used by Echevarría were, at the very least, rare enough in Alcalá (an area whose instruments are known for their wide variety of reed pipes) that Echevarría was able to pull off such a claim. Wyly, 56.

<sup>59</sup> Owen, "Organ."



It appears that Echevarría was so fond of these new full-length *clarines* that he and his son continued to install comparable stops, in addition to a number of short-length reeds, in many of his later organs, including the aforementioned one manual, divided keyboard instrument built in 1677 at the Church of San Juan Bautista in Mondragón (see Table 2-2 below).

Table 2-2. Specification of the José de Echevarría Organ at the Church of San Juan Bautista (Mondragón, Spain), 1677.

<b>Lleno Stops (all divided):</b>	<b>Other Stops (all divided):</b>
flautado principal de 13 palmas 8'	corneta real, 6 ranks (8', 4', 2 2/3', 2', 1 3/5', 1 1/3'), treble
octava 4'	trompetas reales 8'
docena clara 2 2/3', principal scale	dulzainas in the façade (8' or 4')
quincena 2'	clarín 8', treble
decimonona 1 1/3'	segundo flautado abierto de 13 palmas 8'
compuestas del lleno, 3 ranks 1', 2/3', 1/2'	nazarda mayor 2 2/3'?*
zimbala, 4 ranks 1/2', 1/3', 1/4', 1/6'	sobrezimbala
	cascabeladas
	julgueros
	bordones de la gaita zamorana
	atabales

Echevarría's inclusion of this multitude of reeds in his Alcalá organ and others foreshadows organ building trends throughout the next century. Indeed, by the mid-eighteenth century, most large instruments would contain a full battery of reeds of various types, both vertical and horizontal. The larger the instrument, the greater the variety of reeds, choruses, and other solo stops.<sup>60</sup> In addition to being popular with the organ builder himself, the trend was popular throughout Castile. Wyly states that "by 1700 façade reeds seem to have been installed nearly everywhere except in Catalonia."<sup>61</sup>

#### Cross-Cultural Influences: The Netherlands

The organ has enjoyed a long and prestigious history in Spain, and yet, the stylistic, acoustical, and timbral characteristics of these early instruments owe as much to foreign builders as to those of the Iberian Peninsula. Though the beginning of the Baroque era was accompanied by a new wave of domestic builders, the foundations of the Spanish school were fostered by both Spaniards and immigrants. Subsequently, the importation of foreign organ builders became neither the exception nor the rule, but cross-cultural trends in organ building would come to represent the diverse and idiosyncratic characteristics of the Iberian organ.

According to José López-Calo, from the fifteenth through seventeenth centuries it was almost exclusively foreigners who brought new ideas and advancements to the world of Spanish organ building. In the late fifteenth and early sixteenth century it was German

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<sup>60</sup> Ibid.

<sup>61</sup> Owen, *The Registration of Baroque Organ Music*, 131.

builders, and later the French and Flemish who pioneered new techniques and made the most innovative and notable contributions.<sup>62</sup> Guillaume de Lupe, the Frenchman who is often credited with the incorporation of one of the first divided registers in a Spanish organ, is but one example of this foreign influence. It is this diversity of influences that, perhaps somewhat ironically, came to embody a truly Spanish instrument. For, despite the foreign builders, the resultant instruments responded to the demands of the Spanish aesthetic and the unique body of literature produced by Iberian composers.<sup>63</sup>

However, though organ builders from throughout Western Europe were active in Spain until the eighteenth century, the biggest impact on Spanish organ building was from Northern Europe, with the most important footprint being left by builders from the Netherlands. Dutch and Flemish singers and organ builders were frequently brought to Madrid at the request of Philip II to become employees at the royal court chapel. The close ties between the two areas—Spain and the Netherlands in general, and Madrid and Antwerp in particular—lured Flemish organ builders to Spain to secure new building contracts, and the influence of such builders is reflected in many instruments of this time.<sup>64</sup>

The first Dutch and Flemish builders to come to Spain in the sixteenth century brought with them new ideas which they incorporated into the so-called “Spanish”

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<sup>62</sup> Though not frequently mentioned by López-Caló and other scholars, it should be noted that Italian builders and musicians often established roots in the Iberian Peninsula, as well as greatly influenced Spanish musicians. Italian builders frequently came to Spain and Portugal and secured important commissions, such as that for the instrument at Évora Cathedral. Consequently, the influence of Italian music on Iberian musicians (and vice versa) is unsurprising given the renown of many Italian musicians of the time. This was only further reinforced by the acquisition of Naples by the Spanish crown for over two centuries, from 1503 to 1707. It was not uncommon for Spanish musicians to travel with their patrons to Italy, resulting in their absorption of the Italian style of composition and instrument construction. Such influence continued well into the eighteenth century.

<sup>63</sup> López-Caló, *Historia de la música española*, 123-124.

<sup>64</sup> Owen, “Organ.”

instrument. Included among these was the use of the Flemish nomenclature for principals, *fleutes*.<sup>65</sup> Flemish builders were also largely responsible for the introduction of many new stops, including chimney flutes, *quintadenas*, *cornets*, *nasard* combinations, toy stops, and an array of reed stops, such as the *chirimía* (*schalmei*), the *orlos* (*krumhorn*), and the *dulzayna* (*dulzaina*).<sup>66</sup>

Of the many Flemish builders active in Spain during the sixteenth century, some of the most notable are members of the famed Brebos family. Gilles Brebos and the other organ-building members of the Brebos clan were considered to be some of the most illustrious organ builders in the Netherlands, particularly in the areas in and around Antwerp. Gilles was known for his many grand instruments, but other family members, such as Gaspard Brebos, who was *templador* (organ tuner) at the court of Philip II from 1572 onwards, also held a lofty position in the organ culture of the Netherlands. The family was renowned throughout the Netherlands before their travels to Spain, and it is likely that their reputation helped them to gain notice and exposure in the peninsula.<sup>67</sup>

Gilles Brebos left for Spain with his family in 1579,<sup>68</sup> presumably with the intention to begin work on the four, large organs to be installed at Philip II's new monastery, San

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<sup>65</sup> The use of this term enjoyed only a brief popularity, however, and the more common Spanish denotation *flautado* would soon become fairly standard terminology throughout the Iberian Peninsula.

<sup>66</sup> Owen, "Organ."

<sup>67</sup> Maarten A. Vente, "Dedicado a Antonio de Cabezón (1510-1566) en el IV Centenario de su muerte. 'The Family Brebos, Organ Builders from Lier and Antwerp,'" *Anuario Musical* 21 (1966), 39.

<sup>68</sup> *Ibid.*, 43. According to the author, it is likely that Brebos had already secured the contract for the Escorial organs by the time of his departure for Spain. He surmises that this was a timely undertaking for Brebos and his family, whose work centered in the Netherlandish city of Brabant, which was undergoing a period of civil war and religious uprisings resulting in negative ramifications for organ building and culture.

Lorenzo del Escorial between the years 1563 and 1584.<sup>69</sup> The largest of the four organs contained an amalgam of Flemish and Spanish stops and an independent pedal division, a rare occurrence in Spain at this time. In addition to the four larger organs for El Escorial, Gilles and his workers installed other, smaller organs for the same site, including a portative organ and an instrument that was constructed for the royal apartments.<sup>70</sup> The Brebos instruments, all of which are still extant (though most have been highly altered from their original specifications) reflect a unique fusion of two national styles.<sup>71</sup>

Though the Brebos family represented the pinnacle of Flemish organ building in Spain, there were a great many others who were working throughout Spain and Portugal during the sixteenth and seventeenth centuries. One example is the builder Pedro Flamench (Peter the Fleming) who was working in Barcelona in the 1540s.<sup>72</sup> Like Madrid, Barcelona also appears to have been a hub for northern European organ builders, and Pedro Flamench was but one of many builders in the area whose work was greatly praised. However, unlike the Madrid-based Brebos family and other progressive builders in that area, builders in Barcelona—with Pedro Flamench being no exception—seem to have been

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<sup>69</sup> It is known that Gilles was accompanied to Spain by Gaspard Brebos (*d* 1588), Michiel Brebos (*d* 1590), and Jan Brebos (*d* 1609). There continues to be controversy as to whether these fellow organ builders and craftsmen were Gilles' sons or were, in fact, his brothers. Gilles died before the organs for El Escorial could be completed and Gaspard, Michiel, and Jan—regardless of the specifics of their familial ties—undertook the task of finishing the instruments.

<sup>70</sup> Vente, "Dedicado a Antonio de Cabezón," 43.

<sup>71</sup> Althouse, "José Elías," 10-11. The Brebos organs at El Escorial are certainly the family's most famous instruments in Spain, but there are a number of other fine examples by members of the Brebos family, such as the Hans Brebos organ found at the Royal Descalzas Monastery. This instrument was host to such famed organists as Tomás Luís de Victoria (organist and choir master there from around 1585 to 1611) and José Elías (who accepted the post of organist at the monastery in 1725). Another example is the Juan Brebos instrument built at Toledo Cathedral in 1592 and the organ at the Alcázar in Madrid dating from 1590 and updated by Brebos in 1606.

<sup>72</sup> Owen, "Organ."

less prone to incorporating new styles into their organs. The newest, most innovative organs would continue to be produced by builders in the central and southwestern areas of Spain throughout the next century.<sup>73</sup>

In the seventeenth century, Flemish influence continued to play an important role in Spanish organ building, as well as in performance and composition. The Langhedul family, organ builders who were active not only in Spain, but throughout Flanders, England, France, and Italy from 1481-1685, built a number of notable instruments in Spain,<sup>74</sup> while fellow Fleming Gaspar de Soto built the large organ in the Capilla del Condestable of the Burgos Cathedral.<sup>75</sup> In addition, beginning in the sixteenth century, many of the most important cathedrals, including those in Seville, Barcelona, and Lérida, appointed organists from the Netherlands.<sup>76</sup>

Organ builders and musicians alike from all over Europe contributed to the development of the Spanish organ and its compositions from the fifteenth through the eighteenth centuries. Each brought their own national and individual traditions to the country; while some of their styles of building never caught on with great force, others became defining elements of a truly Spanish instrument. Of all the international influences, it was the efforts of builders and musicians from the Netherlands that provided the most

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<sup>73</sup> Ibid.

<sup>74</sup> Owen, *The Registration of Baroque Organ Music*, 3.

<sup>75</sup> Nicolas Thistlethwaite and Geoffrey Webber, eds., *The Cambridge Companion to the Organ*, 165.

<sup>76</sup> Ibid. International ties of this nature were, of course, not confined to Spain and the Netherlands. One important example of this cross-cultural influence is shown by the travels of organ composer and performer Jean Titelouze (1562/63-1633). Titelouze, a native of the Spanish Netherlands, traveled widely and was responsible for bringing the Flemish organ builder Crespín Carlier (1560-1640) to France to undertake work on the instrument at Rouen Cathedral in around the year 1600.

lasting contributions. Such impacts as the installation of a variety of reeds and expanded pedalboards would allow for a more refined instrument as the seventeenth century gave way to the eighteenth.

## Eighteenth Century and Beyond

By the opening of the eighteenth century it became increasingly difficult to describe a typical Spanish instrument; even the geographical delineations that defined these instruments in the sixteenth and seventeenth centuries faded in importance. In addition, the foreign influences that were so prominent in the two preceding centuries would wane to almost nothing at this time, resulting in Spanish instruments that could consist of any number of manuals and stop configurations.

One can, however, provide at least a cursory description of the multitude of possibilities in both Castile and Catalonia in the eighteenth century. The organs could consist of one, two, or three manuals, a majority of which continued to be divided, as the trend had effectively moved to most parts of Catalonia by this time.<sup>77</sup> Despite the ever-growing quantity of manual stops, the pedal registers of most Iberian instruments continued to be limited, expanding only slightly from the earlier standard of seven or eight pedal notes to twelve or thirteen. In most instruments the pedal register, albeit slightly larger than its sixteenth and seventeenth century ancestors due largely to the influence of

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<sup>77</sup> Three-manual instruments continued to be the exception, though there are certainly records of outstanding large-scale instruments. One example is seen in the 1747 Granada Cathedral organ. It consisted of an *órgano mayor*, *cadireta exterior*, and a *cadireta interior*. Along with a wide variety of horizontal and vertical reeds (some of which were divided), mixtures, and mutations, it also included orchestral stops such, including a transverse flute, a *violón*, and an *imitación de violines*.

Dutch and Flemish builders, frequently still consisted of pull-downs from the *órgano mayor*. Only in the late eighteenth century would independent pedal stops become common.<sup>78</sup>

From the mid-century onwards, Castilian and Catalanian instruments began to show remarkable similarities in construction and design. In most instruments both sides of the organ (front and back) were utilized, allowing for two façades. Many employed both interior and exterior *cadiretas*, and front and back main chests that each held a complete *flauta* chorus and *lleno*. Most organs contained a comprehensive horizontal reed battery as well as a full chorus of interior vertical reeds.

Indeed, reed choruses, both horizontal and vertical (interior and exterior), had become one of the defining characteristics of Spanish organs. Interior *trompeta reales* were refined reed stops, which could be used as either a solo stop or employed together as a chorus, while horizontal *clarines* were harsher sounding and typified the Spanish organ. *Trompetas* became standard in almost all organs built at this time.<sup>79</sup> By the first quarter of the eighteenth century reed stops at the 8', 4' or 2', and 1' pitches, such as the *bajón* or *baxón*, *chirimía* and *bajoncillo*, and *violeta*, respectively, became commonplace and were often found in the bass of divided register instruments. Such stops can be found under a dizzying array of names, but most can be described as full-voiced and brilliant.<sup>80</sup> The *orlos*, a façade *regal* reed at the 8' or 16' that made its appearance in the seventeenth century continued to be a frequent inclusion and eventually became a replacement for the *dulzaina*

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<sup>78</sup> Johnson, *Historical Organ Techniques: Spain*, 16-17.

<sup>79</sup> Owen, *The Registration of Baroque Organ Music*, 131.

<sup>80</sup> Ibid.



that was more prevalent in preceding decades.<sup>81</sup> An example of the liberal use of reed stops at this time can be seen in the specification for the eighteenth-century epistle organ at Tudela Cathedral in Navarre (see Table 2-3 below).<sup>82</sup> The instrument consisted of only one manual, with most stops being divided.

Table 2-3. Specification of the Tudela Cathedral Epistle Organ (Tudela, Spain).

flautado de 13 (8' principal)	corneta en ecos (cornet enclosed in a box)
violón (8' stopped flute)	clarín de ecos (8' enclosed trumpet)
octava (4' octave)	trompeta real (8' interior trumpet)
12na (2 2/3' principal)	trompeta 8' (horizontal trumpet)
nazardo en 12na (2 2/3' flute)	clarín 8' (horizontal trumpet)
15na (2' super octave)	chirimía (4' horizontal trumpet)
nazardo en 15na (2' flute)	trompeta magna (16' horizontal trumpet)
nazardo en 17na (1 3/5' tierce flute)	trompeta (8' horizontal trumpet)
lleno (principal chorus)	oboe (8' horizontal oboe)
címbala (principal chorus)	
	pedal: 8 Contrás (16')
	Additional stops: Pájaros (enclosed)

Along with various types of reeds, other stops also experienced a surge in popularity during the eighteenth century. The *cornet* and *tolosana* were compound stops including the

<sup>81</sup> Althouse, "José Elías," 22.

<sup>82</sup> Ibid., 27-28.

tierce, which contained as many as seven ranks. Though used in moderation during the seventeenth century, they became customary additions to new and renovated instruments.<sup>83</sup> Both mutation stops (including the *nazardos y cornet* or the *corneta*) and an array of mixture stops (particularly *lleno* mixtures of various numbers of ranks and the *címbala*) continued to be common. To these stops were added new, orchestral stops, including the *flauta traversa*, *flauta dulce*, *clarinete*, *fagot*, *voz humana*, and *violín*, among numerous others.<sup>84</sup>

Unlike reeds and an assortment of other color stops, accessory stops became less important in the eighteenth-century Spanish organ, though they were still seen in varying degrees in most instruments. Drums such as *tambores* and *timbales*, bell stops with the names *cascabeles* or *campanillas*, and bird calls such as *pájaros* and *ruyseñores* continued to be found in both small and large organs, with the added bonus that, due to advances in organ construction, they could now be controlled more easily through the use of foot levers (*estribos*).<sup>85</sup>

Other minor, but relevant revisions were made as the eighteenth century progressed. Changes in the construction and design of pipes led to a gradual departure from wooden pipes. Metal pipes became the norm, though wood continued to be used for specific stops that necessitated its use, including drum stops, pedal *contras*, and the *flauta traversa*. The keyboard compass was further extended from 42 to 49 notes. By the close of

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<sup>83</sup> Owen, *The Registration of Baroque Organ Music*, 130-131.

<sup>84</sup> Johnson, *Historical Organ Techniques: Spain*, 18.

<sup>85</sup> Ibid. Along with *estribos*, *rodilleras* (knee levers) also became popular, especially in Castile. Such innovations allowed the performer to couple manuals together and allowed for easier registration changes.

the century, many organs, such as the instrument constructed by the renowned organ builder José Cases for El Escorial in 1771, had a compass of 61 notes! This shows that organs were slowly incorporating new techniques, despite the degree of standardization that was representative of the eighteenth century.

As the influence of foreign organ building diminished, Spain turned to native builders for innovative organ building techniques. Some of these distinct characteristics of new organs, including the new expanded timbral qualities and the ever-broadening compass, were the result of builders from the Basque country and Navarre who settled in the areas close to the royal palace in Madrid, at the end of the seventeenth century and brought with them new ideas and building methods.<sup>86</sup> Examples of this diaspora include members of the Echevarría family, already renowned for their specialized reed stops and the inclusion of horizontal *clarines* in a majority of their instruments, who were originally from the Basque country.<sup>87</sup> Members of the family had moved to Madrid as early as the opening years of the eighteenth century in order to assume the post of organ tuners of the royal chapel, a position that would remain in the Echevarría family for decades.

Other native Spaniards were also active building large-scale instruments at this time. Of special renown were José Casas (a Catalanian builder), the Verdalonga family (originally from Castile), and the Andalusian builder Leonardo Fernández Dávila and his protégé Jordi Bosch, a skilled craftsman from Majorca who would achieve a great level of fame in his own right. An example of the duo's work can be seen in the royal chapel organ, begun by Fernández Dávila's father and completed by the pair in 1778. It was through the

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<sup>86</sup> Thistlethwaite and Webber, *The Cambridge Companion to the Organ*, 164-65.

<sup>87</sup> *Ibid.*, 164.

contribution of such nationals that the culmination of Spanish organ building in the Baroque era was reached.<sup>88</sup>

The eighteenth century brought with it a blossoming of creativity. The instruments that resulted could be comprised of various configurations of manuals and stops. Reeds and color stops remained the cornerstone of the Spanish organ and the *registro partido* enjoyed continued popularity, despite slowly-changing approaches to composition. Foreign influence declined, leaving room for native Spaniards to make their definitive mark on their national school of organ building and design. Instruments deemed remarkable were less defined by geographic location as they were by the innovations of famous organ building families and national and stylistic traditions that had become ingrained in Spain's organ culture.

## Summary

The history and development of the Spanish organ from the sixteenth to the eighteenth centuries is integrally connected to the history of Europe itself and the development of the pipe organs that would come to be defined by their own unique national heritages. Prior to the sixteenth century, Spanish organs were in many ways indistinguishable from their pan-European relatives and lacked the characteristics that would later come to embody a truly Spanish instrument. Consequently, the chief components of the Iberian organ—incorporation of the *registro partido* in the late sixteenth

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<sup>88</sup> Malcolm Boyd and Juan José Carreras, eds., *Music in Spain During the Eighteenth Century* (Cambridge: Cambridge University Press, 1998), 179-80.

century, the development and installation of horizontal reeds in the seventeenth, and the invention of new, dynamic color and toy stops and new structural mechanisms—would lead to a sophisticated and mature style of melding foreign and international characteristics. Regional styles of building, most generally seen in the output of builders of the Castilian, Catalanian, and Basque regions, would be defined by the presence or absence of reeds, number of manuals, and the relative use of the *medio registro*. These differences would diminish over time, and by the eighteenth century the Spanish organ continued to be defined by brilliant reeds and divided keyboards. By the end of the eighteenth-century, Spanish organs represented the culmination of several centuries of advancements and ingenuity. The results were extraordinary instruments representing a long history of the merger of cross-cultural influences and national aesthetics.

## Chapter 3

### History and Development of the *Registro Partido*

#### **The Mid-Sixteenth Century: A Time of Transition**

The last quarter of the sixteenth century was a time of gradual change for the way that Spanish composers and organ builders approached their crafts. Subsequent generations of *tiento* composers would not appear until well after the turn of the seventeenth century. The world of organ construction and design was furthered by the continued presence of both foreign and indigenous builders who strove to move the Iberian organ from the newly-divided, non-*Blockwerk* instruments of the early Renaissance to the mature organs representative of the decades directly preceding the Baroque. They persisted in making notable advancements in the construction of their instruments, most significantly, the gradual installation of the divided register: the *registro partido*.

The incorporation of the *registro partido* into Spanish organs began sometime around the mid-sixteenth century in Castile; by the beginning of the seventeenth century it was so *en vogue* that few new Castilian organs were constructed without divided stops, and many preexisting organs were being renovated and reworked to include them. Though it would take almost another century for the practice to be common in Catalanian organs, the custom would become customary throughout the entire Iberian Peninsula. By the end of the seventeenth century it would spread to the New World, though it appears that the

device was not as important or widespread in present-day Portugal or America as in Spain.<sup>1</sup>

Though there are practical and aesthetic reasons for the development of the *registro partido*, it is hard to say why this trend became so popular in Spain. To this end, one may only surmise why builders outside the peninsula merely dabbled with this technique, leaving only hints of the *registro partido* and its variances in Italy, France, and the rest of Europe. Despite its eventual abundance throughout the Iberian Peninsula, there is little documentation as to the specific reasons why the *registro partido* came into existence or why it experienced such popularity and staying power.

The division of organ manuals into two halves and the resultant possibility of different tonal colors in the left and right hands led to a distinct change in both the Iberian organ and its literature. Perhaps the most important result of the development of the *registro partido* is that, for the first time, composers had a vehicle whereby they could write music exclusively for the organ, and not for keyboard instruments in general; indeed, the *tiento de medio registro*, the genre that resulted from the development of the *registro partido*, could not be played suitably or adequately on any other instrument. The *tecla* music of the sixteenth century was replaced with a new, distinctive style of writing that would remain in place for generations.<sup>2</sup>

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<sup>1</sup> James Wyly, "The Pre-Romantic Spanish Organ: Its Structure, Literature, and Use in Performance," 39-40.

<sup>2</sup> Robert Parkins, "Spain and Portugal," in *Keyboard Music Before 1700*, ed. Alexander Silbiger (New York: Schirmer Books, 1995, 312-359), 303.

## Earliest Appearances of the *Registro Partido* in Spain

Before discussing the history of the *registro partido* it is first necessary to examine an issue of semantics and usage. As there was no standardized Spanish language at the time of the technique's advent, there were several ways to describe the divided keyboard. The verb *partir* (to divide or split) and its past participle *partido* were used most commonly in the earliest documents referring to this practice, while the descriptor *quebrado* (broken) is used in some instances, though far less commonly. The designation *medio registro* would only become commonplace after the publication of Correa de Arauxo's *Facultad orgánica* in 1626; Correa himself referred to the technique in the titles of his *tientos* and this

usage was quickly adopted by other *tiento* composers. Perhaps because some of his works are the most notable *tientos* in the Spanish repertoire, it is his *medio registro* designation that continued as the standard designation from the 1620s up to the present day.<sup>3</sup>

According to Jesús Ángel de la Lama, the first documented instrument to contain a *registro partido* was an organ built by Pere Serrano at the Church of San Nicolás in Valencia in 1547. De la Lama asserts that the Serrano organ was, rather interestingly, comprised of two manuals, making it an exception to the more common, one-manual *registro partido* instruments that would appear in the last half of the sixteenth century.<sup>4</sup>

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<sup>3</sup> Louis Jambou, "El órgano en la península ibérica entre los siglos XVI y XVII. Historia y estética," *Revista de musicología* 2/1 (enero-junio 1979), 37.

<sup>4</sup> According to Jesús Ángel de la Lama in *El órgano barroco español* (vol. 1, 249). Unfortunately, lack of documentation makes it difficult to discern how this instrument fits into the overall development of the *registro partido*.



The largest corpus of early Spanish organs containing *registro partido* stems from the years 1567 to 1601. During this span, at least ten notable instruments incorporated this device (see Table 3-1 below).<sup>5</sup>

Table 3-1. Early *Registro Partido* Instruments and their Builders, 1567-1601.

<b>Date</b>	<b>Builder</b>	<b>Church</b>	<b>City</b>
<b>1567</b>	Guillaume de Lupe	Iglesia de Santa Cruz	Zaragoza
<b>1568-1579</b>	Maese Jorge	Cathedral	Seville
<b>1578</b>	Gilles Brebos and family	El Escorial	Madrid
<b>1588</b>	Gaspar Marín	Cathedral	Huesca
<b>1589</b>	Melchior de Miranda	Cathedral	Toledo
<b>1592</b>	Juan Brebos	Cathedral	Toledo
<b>1598</b>	Guillaume de Lupe	Convento San Francisco	Zaragoza
<b>1600</b>	Guillaume de Lupe	San Pedro de los Francos	Calatayud
<b>1600</b>	Claudio Girón	Cathedral	Cuenca
<b>1601</b>	Manuel Marín	Mon. Concepción Francisca	Segovia

According to Jambou, the builders that introduced the concept of the *registro partido* to the Spanish organ can be divided into two different categories. The first group includes French and Flemish builders that forged reputations in Spain (often after first establishing

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<sup>5</sup> Jambou, "El órgano en la península ibérica," 38.

successful building firms in their home countries), including Guillaume de Lupe, Gilles Brebos and his family, Maese Jorge, and Claudio Girón. It was these builders (and others like them) that most likely led to the importation and incorporation of the divided stop to Spain. The second group was native Spanish builders such as Gaspar Marín, Manuel Marín, and Melchior de Miranda. Gaspar Marín was based in Logroño (in Rioja) and known primarily for the instrument he built for Huesca Cathedral. Valladolid-based Manuel Marín (who may have been Gaspar's son) was known for his work in Segovia, and Melchior de Miranda, a builder who appears to have been centered in Toledo, worked at Toledo Cathedral.<sup>6</sup>

Table 3-1 shows just how quickly the *registro partido* spread across Spain. Though the actual number of these instruments was relatively low given that they were built over a span of over thirty years, from the 1567 Guillaume de Lupe instrument in Zaragoza to the 1601 Manuel Marín instrument in Segovia, one sees significant geographic dispersion of the technique to some of the most important organ-building hubs in Spain in only a little over three decades.<sup>7</sup>

### **Earliest Documented *Registro Partido* – Guillaume de Lupe Instrument, 1567**

One of the first references to an organ with a *registro partido* comes from an instrument that Guillaume de Lupe agreed to build in 1567 (just a year after Cabezón's

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<sup>6</sup> Ibid., 38.

<sup>7</sup> Ibid. The history of these early *registro partido* instruments also helps establish a rule in regards to the spreading of new organ building trends: innovations most often spread from north to south.

death) for the Church of Santa Cruz in the city of Zaragoza. The organ, originally constructed by “Gothic” builder Johan Ximénez Garcés (also known as Johan de Berdún) in 1469,<sup>8</sup> and one of the oldest of the instruments found in Zaragoza, was updated by de Lupe to reflect the changing musical aesthetics of the late Renaissance. De Lupe exceeded this goal by including a *registro partido* stop that would foreshadow one of the major characteristics of Spanish Baroque organ building.<sup>9</sup>

De Lupe (c 1540-1607), of French origin, was based in Tarazona, and was active in and around this area, as well as parts of Aragon, Navarre, and Rioja, from the early 1560s until his death.<sup>10</sup> Aided by his two sons, Marco (b 1566) and Gaudioso (b 1575), he was highly prolific and became known for his impressive new instruments, such as those at Paracuellos de Jiloca (an early instrument, dating from the years 1556-1567) and San María de Palacio in Logroño (1577), among others.<sup>11</sup> He also was influential in the arena of organ repair and restoration, renovating organs such as those found at the Collegiate Church in Daroca (repairs made in both 1569 and 1597), San Pedro de los Francos in

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<sup>8</sup> In 1577, de Lupe was contracted to update the Garcés organ at La Seo in Zaragoza. It does not appear that he incorporated any *registros partidos* into this organ, but it is suspected that his son Gaudioso may have been responsible for the addition of the instrument’s first divided stops in 1610. For more information regarding the organ at La Seo and its various updates, see: Pedro Calahorra, “El órgano que en 1469 donó el arzobispo Don Juan I de Aragon a su cathedral de San Salvador—La Seo—de Zaragoza,” *Revista de musicología* 6, 1/2 (1983), 165-212; for a history of the renovations and restorations of the La Seo from de Lupe to the present day, see: <http://www.grenzing.com/organosshow.cfm?id=12&ip=1012> (accessed 5 January 2015).

<sup>9</sup> The updates made by de Lupe would be preserved until further renovation was undertaken in 1696 by builder José Sesma. An account of updates made by Sesma can be found in: José María Arrizabalaga and Pedro Calahorra Martínez, “La evolución del órgano Íberico en los siglos XVI y XVII a través del órgano del Parroquia de Santa Cruz de Zaragoza” *Revista de musicología* 1, 1/2 (1978), 107-123.

<sup>10</sup> At the time of Guillaume’s death he left unfinished what would be considered one of his best and most important instruments—that for the Collegiate Church of Santa María de la mayor y los corporales in Daroca. See: Pedro Calahorra, “Lo que he gastado en el órgano que se ha hecho en la Iglesia de San Miguel de Daroca, año 1567,” *Revista de musicología* 4/1 (enero-junio 1981), 171-193.

<sup>11</sup> Aurelio Sagaseta Ariztegui and Mendiola Cruz Labeaga, “La obra del organero Guillaume de Lupe en Navarra: Hipótesis y realidad,” *Nassarre* 2/1 (1986), 95.

Calatayud (1600), and several important instruments in Zaragoza, including the organs at Metropolitan Cathedral (1577-9 and 1591), San Pablo (1584), and the Basilica of Nuestra Señora del Pilar (1595 and 1602).<sup>12</sup>

By the time de Lupe secured the contract and began renovations on the organ for the Church of Santa Cruz he was a well-known organ builder throughout Zaragoza and, consequently, was a likely choice for the updates. A contract between de Lupe and the officials in charge of overseeing construction on the organ is extant and offers details of the specific stops that were to be included in the new instrument. The agreement, dating from July 1567, states that, in addition to such customary inclusions as a principal and open flute at 4' pitch, it contained *una dulzaina con su diferencia partida* (a divided solo stop—a *dulzaina*—found in both the treble and the bass).<sup>13</sup>

Contract of the organ built by Guillaume de Lupe:

Contract and agreement, made between the illustrious Don Juan Francés de Anriño, Lord of the Baron of Osera, and the magnificent Pedro de Mondragón, and Guillaume de Lupe, organ builder, concerning the organ that said Guillaume will build in the Church of Santa Cruz in the city of Zaragoza.

And first, it is agreed and contracted between these parties that the said Guillaume will make an organ for this church of Santa Cruz, the largest division of which will be six and a half *palmos* [4'].

Item, has to have a *flauta tapada unisonus del flautado* [4'].

Item, another *octava de tres palmos* [2'].

Item, a *quinta gruesa*.

Item, another division for the *lleno*, which will have two ranks per stop.

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<sup>12</sup> Guy Bourlignieux, "Lupe, de," *Grove Music Online* (accessed 18 September 2014) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/L2232609>.

<sup>13</sup> Pedro Calahorra Martínez, *La música en Zaragoza en los siglos XVI y XVII* 1 (Zaragoza, 1977), 233. A transcription of Zaragoza, Archivo Histórico Provincial, Notario Cristóbal Navarro, f. 456 (dated 26 July 1567). For the original Spanish see Appendix II. Translation by author.

Item, a divided *dulzaina*.

Item, a *temblante*.

Item, he has to make a new case with five towers with their moldings and frontispieces, all new.

Item, it is agreed on between the parties that the organ is made as said above, [and] is known [inspected] by two or three musicians of this city.

Item, it is agreed between the parties that Guillaume will have to build the organ, as stated above, so that it is finished for the Day of the Invention of the Holy Cross [Dia de la Invención de la Cruz] which falls on the third day of the month of May of coming year, 1568.

Item, it is agreed between the parties that said Guillaume, fulfilling all that awaits him, as said above, you have to give and pay Guillaume the said sum in the amount of five hundred thousand *sueldos*, the amount promised, and Don Juan Francés de Ariño and Pedro de Mondragón undertake to provide and pay *simul et in solidum* [together and in solidarity] to said Guillaume; to which don Juan Francés de Ariño and Pedro de Mondragón will abide by the legal agreement guaranteeing *simul et in solidum* [together and in solidarity] all point by point previous agreements, binding their persons to all previous guarantees hereby established.

Protocol of the notary Cristóbal Navarro, 26 July 1567, fol. 456.<sup>14</sup>

The resulting instrument was a small-scale organ based on a 4' pitch and having a compass of *C-a''*, which reflected the limited scope of the parish church that it inhabited. Though this instrument hardly resembled the completely split keyboards of many later instruments, de Lupe's inclusion of this single, divided reed was a primary and crucial step in the development of the *registro partido*. Indeed, the trend of including at least one or two split stops—most often reed or other solo stops in lieu of the more chorus-oriented principals and flutes—would become commonplace during the last quarter of the sixteenth century.

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<sup>14</sup> Ibid., 109. Translation by author.

Though de Lupe was of French heritage, there is no reason to believe that this early example of a divided stop was in anyway influenced or derived from the organ builder's place of origin. Two primary factors support this idea. First, at the time of the organ's construction in the late 1560s, there was no tradition in France of including split or halved stops of any kind.<sup>15</sup> Second, while the divided *dulzaina* found in the Church of Santa Cruz probably represented de Lupe's first use of the *registro partido*, it is unlikely that this was the first to have been built. Had it been a newly-invented technique, it seems likely is that de Lupe himself, or those in his musical or ecclesiastical circles, would have made such a statement. Unfortunately, given the lack of documentation, it is likely that the first builder to utilize the divided stop will remain anonymous and forgotten unless new information comes to light.

### **The First Complete *Registro Partido* Organ – Maese Jorge, 1579**

While the de Lupe instrument at the Church of Santa Cruz appears to have been influential in the development and eventual popularity of the *registro partido*, it was not until over a decade later that a completely divided instrument was constructed. Presumably one of the first—if not the first—wholly *registro partido* instrument was built by Maese Jorge in 1579 for Seville Cathedral (see Figure 3-1 below). This instrument was pivotal in the development of the *tiento de medio registro*, as it would be the church organ played by Francisco de Peraza, the composer often accredited with composing the first piece specifically for *registro partido*.

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<sup>15</sup> Though the cornet was frequently found in Flemish organs from the 1560s onwards, its inclusion in French organs would not take root until the late sixteenth century.

Figure 3-1. Maese Jorge Organ at Seville Cathedral (Seville, Spain), 1579.<sup>16</sup>



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<sup>16</sup> Photo courtesy of José Luiz Bernardes Ribeiro.

We know little about Jorge's life. It is known that the builder, who was of Flemish origin, was very active in and around Seville. He, along with his nephew Enrique Franco, was responsible for the design and construction of some sixty instruments, not including a number of instruments exported to South America.<sup>17</sup>

Intriguingly, while Jorge and his nephew became well-known Sevillian builders, in 1567 Jorge was residing in Zaragoza and only moved to Seville after receiving the contract for the cathedral instrument, which he spent almost the next decade building. Therefore, it is possible that Jorge would have known de Lupe. He might even have had the opportunity to study the divided *dulzaina* stop at the Church of Santa Cruz. At the very least, one may hypothesize that Jorge learned of the new technique and sought to further explore its capabilities by incorporating this innovation in the instrument for which he had just secured a contract.<sup>18</sup>

Records from Seville Cathedral convey that the organ building process included a great deal of conflict. A report from March 6, 1568 states that the dean of the organ committee, a Doctor Ramírez, was asked to inquire why the project was delayed. By June of the same year the committee decided to revoke Jorge's contract, citing that the project was becoming too expensive and that there were rumors that the organ would not equal the splendor of the instruments found at San Salavador in Seville, Toledo Cathedral, Pilar of Zaragoza, and Córdoba Cathedral—considered to be some of the most impressive instruments in Spain at the time. By November 1568 the dispute has been temporarily

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<sup>17</sup> <http://pipedreams.publicradio.org/tour/2013spain/2013pipedreams-posttrip.pdf> (accessed 14 September 2014).

<sup>18</sup> Jambou, "El órgano en la península ibérica," 38.



settled and work resumes on the organ. The installation is almost complete by 1573, when the chapter requests a reexamination of the original contract and more disputes arise over deadlines and payments. In September of the same year Jerónimo de Peraza, son of the shawmist Juan Peraza and older brother of Francisco de Peraza, is awarded the post of cathedral organist.<sup>19</sup>

Despite these fascinating records, there is, unfortunately, no documentation stating why the Jorge organ in Seville was completed divided. In fact, the known facts about Jorge and current practices only further confuse the situation. Despite the Flemish inclusions to the organ specification that reflect Jorge's training as an organ builder, there is no concrete link between Flemish building trends and the *medio registro*. Divided stops, with the important exception of the treble-compass *cornet*, had not been documented in the Netherlands at that time. Given the popularity of the *cornet* in the Netherlands, it is especially surprising that of the many Flemish inclusions in this instrument a *cornet* was not one of them.

While there is little biographical information about Jorge or his rationale behind making this organ a complete *registro partido* instrument, fortunately a wealth of information surfaced in the late 1970s regarding his 1579 instrument, as well as others he constructed by in Seville. The material regarding the Seville Cathedral organ, discovered in the archives of Seville Cathedral and studied by José Enrique Ayarra Jarne, is in the form of

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<sup>19</sup> Robert Stevenson, *Spanish Cathedral Music in the Golden Age* (Berkeley: University of California Press, 1961), 155.

four documents, *libros de registros y mixturas* (books of registers and mixtures) that detail the organ's specification, as well as possible registrational combinations.<sup>20</sup>

The first document is the *Libro de el gobierno de los registros y mixturas que el organo nuevo de la sancta yglesia mayor de Sevilla tiene; hecho por Baltasar Villada, año de el Nacimiento del Señor de mill y quinientos y ochenta y quarto años, 1584* (Book of the handling of the registers and mixtures [combinations] that the new organ of the largest Holy Church of Seville [Seville Cathedral] has; completed by Baltasar Villada, year of the Birth of the Lord, fifteen hundred and eighty four years, 1584). This provides an account of the registers of the original organ found in the space, as well as Maese Jorge's new instrument. It also includes an explanation of the *mixturas de buenas consonancias de las campanas de la torre de la iglesia mayor de Sevilla* (Combinations of the good consonances of the tower bells of Seville Cathedral).

The second document bears no author's name, date, or title and offers a different account of the instrument's registrational capabilities. The third document is entitled *Registros de los organos. Estado que tienen este año de 1700 los dos órganos de esta Santa Iglesia el grande que hizo Maestro Jorge flamenco el año de 1579 y costó 24000 ducados según Morgado y el menor que hizo el año de 1671 por estar ya gastado el antiguo reconocido uno y otro por el Racionero organista que lo escribió dicho año de 1700* (Registers of the organs. The state of the two organs, in the year 1700, of this Holy Church: the larger of the two was built by Maese Jorge the Fleming in the year 1579 at a cost of 24,000 ducats and, according to Morgano, the smaller of the two was made in 1671 and is now worn out, as are

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<sup>20</sup> Organists and organ builders frequently wrote *Libros de registros y mixturas* to describe various aspects of new or renovated instruments. They frequently included specification lists and, less commonly, registration tables.

both, explains the organist prebendary, testified by him in the year 1700). Joseph Muñoz de Monserrat wrote this document in regards to the organ built by Maese Jorge as well as the instrument built by Antonio Pérez Monge in the year 1671. He also compiled a table of registrational capabilities for the Monge organ. Finally, the fourth document, dated 24 February 1709, is entitled *Informe de la mudanza de el órgano del Sagrario de la Santa Yglesia de Sevilla de su estado y composición de registros, caños y trompetas hecha por Joseph Muñoz de Monserrat Razionero organista de la Santa Yglesia Metropolitana y Patriarchal de Sevilla* (Report of moving the organ of the Sanctuary of the Holy Church Seville, from its condition and composition of registers, pipes, and trumpets, made by Joseph Muñoz de Monserrat, prebendary organist of the Holy Metropolitan Church and Patriarchal Church [Cathedral of] Seville).<sup>21</sup>

Of these four *libro de registros y mixturas*, the most pertinent is that written in 1584 by then-cathedral organist Baltasar de Villada (see below).<sup>22</sup> The *Libro de el gobierno de los Registros y Misturas que el órgano nuevo de la Sancta Iglesia mayor de Sevilla tiene* provides a wealth of information. Villada offers a description of the old cathedral organ build by Garcés in 1479, as well as the new organ by Jorge in 1579. He also includes registration combinations, uncommonly found in documents dating from this period. This is how Baltasar de Villada describes Jorge's instrument:

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<sup>21</sup> Andrés Cea Galán, "Estudios: El libro del órgano de Maese Jorge Flamenco: unas memorias de registros y misturas olvidadas en el archivo catedralicio de Sevilla," *Nassarre* 9/1 (1993), 33-34.

<sup>22</sup> Interestingly, no *libro de registros y mixturas* was completed by the organist of the cathedral at the time of the organ's completion. Jerónimo Peraza, who was organist in 1579, apparently was asked to undergo the task, but left for Toledo in 1581 due to problems with authorities in Seville and never completed the book. It is documented that the production of the *libro* then fell to Maese Jorge himself. However, if Jorge ever completed such a book it was not found with the other *libros* discovered by Ayarra Jarne and has not to date surfaced.

This large organ has twenty-four divided registers [*medios registros*], twelve of wood and the other twelve of iron. This reduces the interior registers to no more than twelve registers, and so those of the left hand control the split stop from the lowest manual key to *c*, and the other registers/stops of the right hand control the other split stops from *c*# to the highest key. All of these registers [combined] result in twelve [complete] registers, of numerical account. Thus, those of the right hand equal those of the left hand. Because there are partners [mates] of each other, when pulled all of these registers of the Great organ, none outsounds the others, and all sound together. And notice that those that are part of a like register can be put together, so that it is a complete register [*registro entero*] and sounds the same as the mixture.

In the wood registers there are six complete registers [*enteros*] that are all principals and flute, capped and uncapped [open], some in unison with the *flautado principal* [8'], and two in *octavas* [4'], some capped and the others open, another two *flautas quizenas*, some capped and the others open, as appears by the demonstration that they are divided between right and left [hands], in front of every register it has its number, that reaches until the number six. And from the number seven until twelve are the registers [made] of iron, which is the *lleno* of this organ; they are the *quincenas*, *docenas*, *sobrequincenas*, *trompetas*, *xabebas*, other *docenas*, each register with a number; and so, in these registers of iron as in those of wood, like numbers [of stops] can be combined so that the register will be complete and sound perfectly, sounding equal to the mixture that the registers will slide in, stay, and pull out smoothly because, if they do not work properly in tune, then the organ will not perform perfectly.

The Great organ has another five registers of wood under others that are on both sides that have labels over each one telling what they are; they include the following:

The first is a general flute for both organs, for which each time, upon playing, the stop will prevent the wind from overburdening the other parts and causing damage.

The second register is a *ruyseñor*, that when played sounds like canaries [singing] sweetly. Add to some indicated mixtures that are principals [*flautadas*].

The third register is a *tambor* that when employed sounds like a type of drum. One can also add to it principal so that it sounds clearly; and I advise the musician that one play the fourth tone because it does not create a dissonance.

The other two remaining registers are tremolos that, removing the wedges in them and putting them inwards from both sides, the sound blends very well

for the indicated *tremolos* and shaking the voices very gently; and for these *tremolos* one should use it with *principals*.

The largest use of wind in the Great organ are two *cordelitos*, one in the right hand and one in the left hand, whose labels are above them, that pulling them up and locking the *anilletas* of the hooks that are there stops the wind of the Great organ, and nothing can sound, and turning to unlock the rings and loosening the *cordelitos* and pulling the other two that are on the sides of the organ it takes the wind and makes a sound like it is spent.

The main principal, the capped unison flute, the trumpets, and the *xabebas*, all are in tune with the octaves, which are number three, placed on both sides.

The *dulzainas* or *trompetas bastardas* of the *cadera* (positive) organ and the capped flutes of these division are tuned with the octaves that are number two, that are in the back of the organ, in some of the registers of iron, and one have to pullout two of the said number, because al of the registers of this organ sound when you pull out the stops and are silent when taken off.

Table of the registers of the Great organ.<sup>23</sup>

Villada's manuscript provides a great deal of additional information regarding the organ's construction. The general characteristics of the organ show both similarities and differences to general trends in organs built in the Netherlands at roughly the same time, making it an example of the many instruments throughout the sixteenth and seventeenth centuries that combined Netherlandish and Spanish trends. The organ contained unison flute and principal stops. Interestingly, there were no principal mutations, as was common in the Netherlands, while its lack of flute mutations went against current Flemish trends. The organ also adhered to the typical *hoofwerk* and *rugwerk* manual scheme common in the Netherlands. Rather odd, however, was the complete lack of pedals or *contras*; this would have been exceedingly rare in Flemish organs, but also was a strange omission even

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<sup>23</sup> José Enrique Ayarra Jarne, "Un documento de excepcional interés para la historia de los órganos catedralicios de Sevilla," *Revista de musicología* 4/1 (enero-junio 1981), 3-4. For the contract in the original Spanish see Appendix II. Translation by the author.

in Spain, despite the small range of most Iberian pedalboards. The growing Spanish preference for a large variety of reeds can be seen in the Jorge organ's many *trompetas* and *regales*. This mixture of Flemish and Spanish characteristics may suggest that Jorge had been ingrained with certain nationalistic tendencies in organ building practices. However, it is also likely that the *cabildo* and other church officials were aware of what style and disposition of organ would best fit the Spanish musicians who would be using the instrument, and probably had the final approval of which elements were included in the finished product.

While it is difficult to determine Jorge's motivation for constructing an instrument with all stops divided, the fact that he did, whether by choice or through a request from those in charge of the project, implies that the Spanish were slowly realizing the capabilities of such an instrument. This would allow its player to use an ever-increasing number of registration combinations, belying the actual size and scope of the instrument. The resources available to the player are particularly interesting in light of the documentation, which shows that this organ was an early example of an instrument containing both front and back "dummy" pipes in the façade. These pipes were constructed not to produce sound, but rather to make the instrument appear more grandiose. Consequently, the Jorge instrument is one of the earliest instruments in which the Spanish aesthetic and preference for aural illusion can be seen.

## Continuing Flemish Influence: Other Examples of *Registros Partidos* in Spain

By the mid-1580s, several examples of *registros partidos*, as well as the construction of completely divided instruments, could be seen throughout most of Castile. Foreign and native builders were active throughout Spain and their instruments represented an interesting mix of both Spanish and international building trends. The most important international influence was no doubt from the Netherlands.

Indeed, it is in northern Europe, what is now the Netherlands and Belgium, that many of the first examples of what may be the predecessors of the divided register are found. The organ at the Dom of Trier, built by Peter Breisiger in 1537, as well as those by famed organ builder Hendrik Niehoff in Bergen op Zoom and Brouwershaven, all contained a *Nachthoorn* (another name for a *cornet*) and a *Zink* (also found under the name *Zinck*) in the treble half of the keyboard.<sup>24</sup>

The inclusions of these half-register solo stops, some of which were confined to their own manual, likely influenced the organ building of the Brebos family, natives of the Netherlands, who greatly shaped trends in Spanish organ culture. An early example of the Flemish influence on the *registro partido* can be seen in the Gilles Brebos organs built for El Escorial in 1584. While these instruments are cited throughout this document, they are important here for several reasons. First, they show that the transition from single, divided-stop instruments (such as that built by de Lupe) and completely divided instruments (such as the one by Jorge) was progressive, but by no means consistent; the

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<sup>24</sup> Wijnand van de Pol, "Some thoughts on the divided keyboard and divided stops. Where did it start?" *Nassarre* 22 (2006), 596. The divided *Zinck* is mentioned in the influential organ treatise *De Organographia* (1619) by Michael Praetorius.

*medio registro* was not adopted in the same way or at the same rate by all builders, and their use could vary greatly from one instrument to the next. Second, like the de Lupe and Jorge organs, they exemplify the fusion of Franco-Flemish and Spanish trends that would become representative of many sixteenth- and seventeenth-century “Spanish” organs.

The four large organs at El Escorial all contain *registros partidos* to various extents. The two *órganos grandes del crucero* contain only one divided register, a *medio registro de tiple de chirumbela de tres hileras* (a cornet of three ranks). The two *órganos medianos del coro* (see Table 3-2 below),<sup>25</sup> one-manual instruments (possessing one windchest divided into two parts) based on 8’ pitch, included four divided registers. This may seem counterintuitive given that the *órganos medianos del coro* are smaller in scope than the *órganos grandes del crucero*, but this further exhibits the ability of small-scale instruments to sound much larger through the use divided registers.

Table 3-2. Specification of the Brebos *órgano mediano del coro*, El Escorial (Madrid, Spain), 1579-1584.

Manual I:	Manual II:
flautado mayor 8’	chiflete 1’ or 1 1/3’
lleno menor	quinzena 2’ (lleno tercero)
lleno mayor	quintas
chirumbela (3 ranks in treble, one rank in bass)	flautas tapadas 4’
flautas	orlos 8’ (bass)
flautas bajas 8’ (bass)	orlos 8’ (treble)

<sup>25</sup> Wyly, “The Pre-Romantic Spanish Organ,” 41-42.



flautas altas 8' (treble)	dulzaynas 8' (bass)
trompetas 8' (bass)	dulzaynas 8' (treble)
trompetas 8' (treble)	tambor
	quintaviento
	ruyseñor
	Gayta
	temblante
	burlador

Though the four large Escorial organs are no longer extant in their original forms, there is one surviving example of an organ likely to have been built by Gilles Brebos and his family at El Escorial: a small, one-manual chamber instrument constructed in 1580. In 1997 it was completely restored and the pipework rebuilt (using pure tin for the principals and tin plating for the reed stops) to its original specifications, which are found below in Table 3-3.

Table 3-3. Specification of the Brebos Chamber Organ, El Escorial (Madrid, Spain), 1580.

<b>Left Hand:</b>	<b>Right Hand:</b>
dulzainas bajas 8'	dulzainas altas 8'
trompetas reales bajas 8'	trompetas reales altas 8'
lleno bajo III	lleno alto III
quincena 2'	octava alta 2'
	docena y quincena $2 \frac{2}{3}' + 1 \frac{3}{5}'$

flautadillo 4'	flautadillo 4'
flautado 4'	flautado 4'
bajoncillo 4'	bajoncillo 4'

As is seen in the above stoplist, the chamber organ differs from the other Brebos organs at El Escorial in that it is completely divided. This is perhaps not surprising given that the chamber organ is comprised of only one manual and the division of all registers would allow for greater registrational capabilities on an instrument of this size.

As with the earlier Jorge instrument at Seville Cathedral, the organs at El Escorial included building techniques that both embraced and belied the builders's Flemish roots. Unlike the Jorge organ, which contained divided stops, but not the customary Flemish *cornet*, the Brebos *órganos grandes del crucero* contain but one divided stop: a *cornet* (*chirumbela de tres hileras*).

The *registro partido* in Spain was used in various capacities between 1560 and the 1580s. Based on the examples described above, the use of divided registers during this period can be separated into four different categories: 1) an organ containing only one divided solo stop, with the other stops being full compass and undivided, shown in the de Lupe instrument from 1567; 2) an instrument that is totally divided, containing all *registro partido* stops, as seen in the Jorge instrument dating from 1579; 3) an organ that contains only one half register, with any other stops being full compass and divided (a mostly parallel, divided disposition), as in the small-scale Brebos organs at El Escorial dating from 1584; and, 4) an instrument possessing a variety of divided registers, resulting in a semi-

split instrument, such as the larger-scale chancel instruments by Brebos, also dating from 1584.

## Types of Early Divided Stops in Spain

It is important to note that while Spanish organ builders of the seventeenth century employed the *registro partido* in a majority of their instruments, many of which were completely divided, its use in the following decades was based more on the builder's own preferences than any adherence to current trends.

Though horizontal reeds (*lengüetería* or *en chamades*) would not develop and become popular until the mid-to-late seventeenth century, the Spanish love of reeds had its roots well before this; subsequently, early organ builders employing the *registro partido* frequently included divided reeds. Of the various types utilized during the last third of the sixteenth century, the *dulzaina* appears to have been one of the most popular—appearing in seven of the thirteen organs, including its honorary position as the very first divided register, in Table 2-1 above. The *trompeta* (at this time meaning an interior trumpet) was also represented, built into five of the thirteen recorded instruments. The *dulzaina* and the *trompeta* continued to be two of the most frequently-used divided stops throughout the seventeenth century.<sup>26</sup>

Other reeds stops were divided less often, but still warrant mention: the *orlos*, the *voz humana* (*vox humana*), and the *chirimía*. The *orlos* was used by Brebos and his sons in the two *órganos medianos del coro* at El Escorial. These are notable in that there were two

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<sup>26</sup>Jambou, "El órgano en la península ibérica," 38.

stops—one controlling the bass and one controlling the treble—so that the two can be employed at the same time, making it a *registro entero* and allowing the player to choose how the stop is to be employed. The *voz humana*, found in three of the thirteen organs, was only located in the treble half of the keyboard at this time, and was most often complemented by *chirimía* in the bass, which is found in two out of the three instruments containing a *voz humana*.<sup>27</sup>

In comparison to the reeds, mutations and mixtures made up a much smaller percentage of *registro partido* stops, but there were a few notable inclusions to the aforementioned instruments. The *nasarte* (also found as a *nasardo*, *nazardo*, and other designations) and its close relative *las docenillas* appear in three organs, with one possessing a *nasarte* in the treble register only. The *quincena mayor* is included in two organs and the *chirumbela* (also found under the name *címbala*, *cymbal*, and other similar spellings) can be found in all four of the Brebos instruments at El Escorial. The Brebos *chirumbela*<sup>28</sup> stops were three-rank mixtures found in the treble register of each instrument.<sup>29</sup>

The builders whose organs appear in Table 3-1 also included divided principals and flutes in their instruments, though they were more interested in divided color stops than divided foundations that were most likely intended as support stops. Nevertheless, there

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<sup>27</sup> Ibid., 38.

<sup>28</sup> Jesús Ángel de la Lama, “Órganos y glosa en la época de Antonio de Cabezón (1510-1566), V centenario de su nacimiento,” *Nassarre* 26 (2010), 65. It is possible that the Brebos family was responsible for Hispanicizing the *corneta* to *chirumbela* or *churumbela* to distinguish it from the reed stop of the same name. From 1584 to 1642, the stop could also occasionally be found under the name *registro de reforzar*—a reinforcing or support stop that was not a reed, but rather a member of the flute family.

<sup>29</sup> Jambou, “El órgano en la península ibérica,” 38.

were divided flutes at the 8' or 4' pitches in five of the thirteen mentioned organs; principals were less frequently divided, being found in only two organs.<sup>30</sup>

The *corneta* (*cornet*, *kornet*, *nachthorn*, *churumbela*, *chirumbela*),<sup>31</sup> a stop found in the treble register comprised of *nasardos*, was a Flemish invention originally used for two functions. In its first capacity the stop reinforced the treble reeds. However, organists and builders alike soon discovered that it was equally desirable as a solo stop; it grew in popularity from the 1560s to the opening decades of the seventeenth century. Four of the earliest usages of the *corneta* are as follows:

1567: first *medio registro de corneta* installed by Gilles Brebos in the great manual of Antwerp Cathedral.

1578-1586: four of the first *cornetas de 3 hileras* are constructed, again by Gilles Brebos, in the organs at El Escorial.<sup>32</sup>

1580-1586: three of the first *cornetas* found in France, all of which are the work of Flemish organ builders.

1620: By this date *corneta* became the definitive denotation of the stop and it became normal to find it comprised of five ranks. After this decade the *corneta* began to be present in the majority of Spanish organs—both large and small.<sup>33</sup>

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<sup>30</sup> Ibid.

<sup>31</sup> Though the stop name was quickly Hispanicized upon its importation to Spain, the stop could also be found under its Flemish names *cornetz de nuict*, *nachthoorn* (frequently used by Gilles Brebos), and *cornet à boucquin*.

<sup>32</sup> De la Lama, "Órganos y glosa en la época de Antonio de Cabezón (1510-1566)," 66. The *churumbela* used by Gilles Brebos in the Escorial instruments only contained the twelfth, fifteenth, and seventeenth pitches of the five-rank *cornet* that would become common in the seventeenth century. According to the composer Diego del Castillo, choirmaster at El Escorial during this time, the stop could be used in conjunction with *dos flautas de 8 y 4 pies* ("two flutes of 8 and 4 foot pitches") and could be accompanied in the bass with the same flutes. This registration allowed for the formation of a complete *cornet* in the treble: 8', 4', 2 2/3', 2', 1 3/5'.

<sup>33</sup> Ibid., 65.

The Brebos family was also responsible for the introduction of the *orlos* in Spanish organs, in the two *órganos grandes del crucero* at El Escorial. It appears that these first *orlos* stops closely resembled the *krumhorn*. Originally they were found in the interior of the organ, but by the early seventeenth century were installed in the façade, though it would still be decades before these stops would be placed horizontally.<sup>34</sup>

Both the *corneta* and the *orlos* were important contributions to the Spanish organ made by Gilles Brebos and his family. The close ties between the Netherlands and Spain in the second half of the sixteenth century likely contributed to the interchange of cultural influences, the *medio registro* being no exception. In addition, frequent travel to and from Spain by organists from throughout Europe, including Peter Philips [*b* 1560-61-1621], John Bull [*b* 1562-63-1628],<sup>35</sup> and Peeter Cornet [*b* 1570-80-1633], all operating as court organists in Brussels, meant that the appeal of the divided stop would have been noted by composers and performers in both countries.<sup>36</sup>

### **The *Registro Partido* Outside of Spain**

The *registro partido* never gained the same widespread popularity throughout the rest of Western Europe. However, divided stops were implemented in various guises

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<sup>34</sup> Ibid., 66.

<sup>35</sup> Van de Pol, "Some thoughts on the divided keyboard," 596. In 1615 and 1624 Cornet was an advisor for the building of organs in Mielchen and Grimbergen; both instruments included a divided *cornet*, as well as a divided *Trompet* 8' and *Schalmei* 4'.

<sup>36</sup> Zoutendijk, trans. by Christ Bragg. 'Le Cornet de Flandres' – The development of the Cornet, and of divided stops in the Southern Netherlands until c 1800 (accessed 14 September 2014), [http://www.orgelhistorie.org/wpcontent/uploads/2010/04/cornetdeflandres\\_summary.pdf](http://www.orgelhistorie.org/wpcontent/uploads/2010/04/cornetdeflandres_summary.pdf).

throughout France, the Netherlands, England, Italy, and even Germany, though to a slightly lesser extent, from the mid-to-late sixteenth century to the eighteenth century.<sup>37</sup>

## Portugal

In many ways the history of the Portuguese organ is markedly similar to those found in Spain. Organs and organ builders are documented as early as the tenth century and several Portuguese rulers (João II, João III, and King Sabastião are but three select examples) are known to have employed native, Spanish, and Flemish instrument makers and craftsmen. It is very likely that these builders, especially those of the sixteenth and seventeenth centuries, constructed beautiful instruments that rivaled any found in Spain. Details of these instruments are sparse, however, and extant organs with their original specifications are exceedingly rare.<sup>38</sup>

In addition to the lack of documentation regarding Renaissance and Baroque Portuguese instruments and the relatively few that survive, Portugal also faced other difficulties that resulted in an organ culture that was stunted in comparison to that found in Spain. While Spain was experiencing a time of great financial, political, and musical growth during the advent of the *registro partido*, Portugal was but a follower and was under

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<sup>37</sup> John R. Shannon, *Understanding the Pipe Organ: A Guide for Students, Teachers and Lovers of the Instrument* (Jefferson, North Carolina: McFarland, 2009), 69. While the break in Iberian organs is traditionally found between *c'* and *c#'*, the division varies by country. To this end, when a division is employed in English or French instruments, the break is most often found between *b* and *c'*—a semi-tone lower.

<sup>38</sup> According to Douglas Earl Bush and Richard Kassel in *The Organ: An Encyclopedia*, there are only two instruments that survive from the sixteenth century: the organ at the monastery of Santa Cruz de Coimbra, dating from 1532), and the instrument at Évora Cathedral, dating from *c* 1562. Both the Coimbra and Évora organs have been heavily updated and it is difficult to discern their original dispositions. See: Douglas Earl Bush and Richard Kassel, eds., *The Organ: An Encyclopedia* (New York: Routledge, 2006), 431.

Spain's control from 1580 to 1640. This proved to be a time of struggle for Portugal's organ culture and, indeed, during these six decades organ building actually declined. Even after Portugal achieved its independence in 1640, organ building was slow to recover.<sup>39</sup>

The incorporation of the *registro partido* was slower to catch on in Portugal and there are several possible reasons. For one, Portugal often looked to Spain for new trends in organ building, despite the existence of capable and talented organ builders of Portuguese descent. In comparison with Spain, which was greatly influenced by foreign builders, particularly those from the Netherlands, as early as the fifteenth century, it would take until the 1680s for Flemish and German influence to firmly take hold in Portugal.<sup>40</sup>

Most of the surviving specification lists from Portuguese instruments containing *registros partidos* stem from the beginning of the eighteenth century onwards. One excellent example appears in the organ at the Mosteiro de Santa Maria de Aroucas. It was originally built between 1739 and 1741 by the Valladolid-born Manuel Bento Gomes Ferreira, one of the most notable eighteenth-century Portuguese organ builders. The stoplist (see Table 3-4 below) shows a mature, fully-divided Iberian instrument; though the nomenclature is Portuguese, the builder's Castillian heritage is clearly seen in the use of a large selection of divided mixtures and reeds.<sup>41</sup>

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<sup>39</sup> Ibid. Consequently, when organ building experienced a renewal at the beginning of the eighteenth century, the result was often the mutilation and destruction of historic instruments by inexperienced or untalented organ builders who sought to "update" or "modernize" these instruments. The Lisbon earthquake of 1755 further exacerbated the demolition of historic instruments.

<sup>40</sup> Gerhard Doderer, "Portuguese Organ Cases of the Eighteenth Century: Splendor and Effectiveness," *Music in Art* 27, 1/2 (Spring-Fall 2002), 105-106.

<sup>41</sup> <http://www.grenzing.com/organosshow.cfm?id=201&ip=201201> (accessed 18 November 2014).



Table 3-4. Specification of the Manuel Bento Gomes Ferreira Organ at the Mosteiro de Santa Maria de Aroucas (Aroucas, Portugal), 1739-1741.

<b>Bass:</b>	<b>Treble:</b>
flautado de 24 16'	flautado de 24 16'
	outava magna 16'
flautado de 12 8'	flautado de 12 8'
ecos flautado violão 8'	ecos flautado violão 8'
ecos flauta doce 4'	eco flauta doce 4'
oitava real 4'	oitava real 4'
dozena 2 2/3'	dozena 2 2/3'
pifanos II	pifanos II
quinzena inteira 7 2'	quinzena inteira 7 2'
dezenovena 1 1/3'	dezenovena 1 1/3'
cheio de 15na III	cheio de 15na III
cheio de 22na III	cheio de 22na III
cheio de 26na III	cheio de 26na III
dulçaina 8'	
	oboé 16'
baixão silho 8'	
	clarim 8'
trompa batalha 8'	
	trompa marina 8'
trompa real 8'	
	trompa magna 16'
ecos nazardos III	

	ecos corneta VIII
contras 8'	

## France

The *registro partido* (though not designated as such) spread to France only a few years after it caught on in the Iberian Peninsula.<sup>42</sup> However, its use in France would certainly be the exception and not the norm. In fact, in the years between 1580 and 1602 there is documentation of only three divided register instruments constructed in France.<sup>43</sup> One is at the Church of St. Gervais and St. Protais in Gisors (see stoplist in Table 3-5 below).<sup>44</sup> This organ, constructed by Nicolas Barbier in 1580, includes the half-register *cornet* (from middle *c'* upwards) that, while of Flemish origin, would later become a staple in French organ building.<sup>45</sup> The stoplist shows that this organ, with its multitude of reeds and compound stops, 8' pedal stops, 1 1/3' flutes, and the use of the *positive*, more closely

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<sup>42</sup> Henri Arnaut de Zwolle's famous treatise on organ building, written between 1436 and 1454 in Dijon, describes an organ at the Dijon Court Chapel, which was said to be in *duo divisa* (divided in two) on the main manual. While it is likely that this is the very first documentation of a divided manual, but there is no other information regarding the organ to substantiate this. For further discussion see Van de Pol, 593-598.

<sup>43</sup> De la Lama, "Órganos y glosa en la época de Antonio de Cabezón (1510-1566)," 64.

<sup>44</sup> Barbara Owen, *The Registration of Baroque Organ Music* (Bloomington: Indiana University Press, 1997), 41-42.

<sup>45</sup> The Barbier organ appears to be an anomaly in French organ building at the time, though the instrument certainly foreshadows a mature seventeenth-century French Classical organ. Vente asserts that it is possible that Barbier himself might have been from the Netherlands, resulting in an organ that resembled southern Flemish instruments of the same time. See: Maarten A. Vente, *Die brabanter Orgel* (Paris: H.J. Paris, 1958), 126.

resembles contemporaneous organs from the southern Netherlands, than those of the French builders of the same period.<sup>46</sup>

Table 3-5. Specification of the Nicolas Barbier Organ at the Church of St. Gervais and St. Protais (Paris, France), 1580.

<b>Grand orgue:</b>	<b>Positif:</b>
montre 16'	bourdon 8'
principal 8'	principal 4'
bourdon 8'	principal? 2'
prestant 4'	petite quinte 1 1/3'
flûte 4'	cimballle II
nazard II 2 2/3' and 2'?	cromhorne 8'
quinte flute 2 2/3'? (chimney)	
doublette 2'	<b>Pedal:</b>
sifflet 1'	"pedal stop" 8' (wood, large-scale)
cornet V (from middle C)	sacqueboute 8'? (sackbut, reed)
fourniture IV-VI	
cimballle III	<b>Accessories:</b>
trompette 8'	tremblant
voix humaine 8'? (regal)	
clairon 4'	

<sup>46</sup> Barbara Owen, *et al.* "Organ." *Grove Music Online* (accessed 4 November 2014)  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/44010pg5>>.

Of the three instruments with divided stops from 1580-1602, only one is a completely divided instrument.<sup>47</sup> Given the small number of instruments that embraced the technique, one may speculate that the initial surge of popularity in Spain resulted in a few forward-looking French churches deciding to adopt the technique in their new organs. Most others would simply embrace the use of the Flemish *cornet* that became popular, in part, through the work of Jehan Langhedul and other builders who were active in and around Paris in the last quarter of the sixteenth century; this can be seen in the stoplist for the Jehan Langhedul instrument found at St. Jacques de la Boucheries in Paris (see Table 3-6 below).

Table 3-6. Specification of the Jehan Langhedul organ at St. Jacques de la Boucheries (Paris, France), 1588.<sup>48</sup>

<b>Manual:</b>	
monstre 8'	cymbale III
bourdon 8'	trompette 8'
octave 4'	jeu d'enfants 8'
flûte à neuf trous 4'	petite trompette 4'
nasard bouché à biberons 2 2/3'	cornet à bouquin IV-VI (from c')
flûte traversine 2'	
flageolet 1'	<b>Pédales:</b>
fourniture V	jeu de pédales 8'

<sup>47</sup> De la Lama, "Órganos y glosa en la época de Antonio de Cabezón (15100-1566)," 64.

<sup>48</sup> Stephen Bicknell, *The History of the English Organ* (Cambridge: Cambridge University Press, 1999), 65.

Whether there were other French instruments that utilized the split keyboard remains a matter of speculation. However, after 1602 there is no extant record of a French instrument employing the use of the *registro partido* until the year 1620. From 1620 to 1637 there is documentation of a total of eight more instruments using the device. Like earlier instruments, it appears that the French continued to favor instruments that employed the use of select divided stops in lieu of organs in which all stops are divided; this is reflected in the documentation of the eight instruments, only one being totally divided.<sup>49</sup>

Though it is difficult to know the motivation behind the adoption of the *registro partido* in France, it is discernible by the sparse amount of organs employing split stops (eleven in total from the years 1583 to 1637) that these appear to be isolated instruments. Though it is known that the majority of these instruments are small in scope, little seems to be known about their history, origins, or the ideas and philosophies that led to their building. According to Ayarra Jarne, their influence or importance to French organ culture is “relegated simply to the fact that they existed.”<sup>50</sup>

## Italy

The history of the *registro partido* in Italy, known there as the *registri spezzati*, has led to confusion surrounding the origins of the divided keyboard in the Iberian Peninsula. As in the rest of Western Europe, excluding Spain and Portugal, the divided keyboard never achieved an important presence in Italy. However, Italy has, at times, been credited with

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<sup>49</sup> De la Lama, “Órganos y glosa en la época de Antonio de Cabezón (1510-1566),” 64.

<sup>50</sup> Ibid. Translation by author.

producing the first split stop in the history of organ building. Examples, including a divided 19<sup>th</sup> stop in the 1506 Giovanni Donadio instrument in the church of St. Maria della Pace in Rome, date back to the early sixteenth century,

The Antegnati family appears to be largely responsible for the few examples of *registri spezzati* instruments. The Antegnatis discussed here all belong to a well-known dynasty of organ builders and musicians originally from Brescia, Italy, whose work made important contributions to Italian musical culture from the late fifteenth century to the mid-seventeenth century.

The initial *registri spezzati* instrument documented was in the Gian Giacomo Antegnati (c 1495–1563) instrument built at the Duomo in Brescia in 1536 (see photo in Figure 3-2 below). The instrument contained only one divided stop, a split principal. The contract listed it as having a *principale tutto intiero* and a *principale spezzato*. Though the instrument and its divided principal predates any of the split stops found in Spain, it is doubtful that the rationale behind the split principal was the same as the solo *registro partido* stops (such as the *dulzaina*) in Spain. Though the provocation for including the single, divided principal in this early Antegnati organ remains unclear, it was likely not intended to take on a solo function and, consequently, bears little relation to the *registro partido* of Spanish organs of the late-sixteenth.<sup>51</sup>

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<sup>51</sup> Ibid., 64.

Figure 3-2. Gian Giacomo Antegnati Organ at the Duomo in Brescia (Brescia, Italy), 1536.<sup>52</sup>



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<sup>52</sup> Photo courtesy of Stefano Bolognini.

Gian Giacomo Antegnati, responsible for the first recorded use of the *registri spezzati* in Italy, began the family's tradition for using the device in the family's instruments. Another example can be found in the Graziadio Antegnati organ at San Giuseppe in Brescia, dating from 1581 (see Table 3-7 below).<sup>53</sup> Graziadio (*b* 1525-*d* after 1590), Gian Giacomo's nephew and the best-known and most-respected organ builder in the Antegnati family, was active in Brescia and the surrounding area from the mid-1560s to the late 1580s. Of the at least nine instruments built by Graziadio, only the instrument at San Giuseppe is extant, having been restored to its original condition in 1956.<sup>54</sup> The organ, like that constructed by Gian Giacomo several decades earlier, also contains a divided principal, though here at the 16' pitch. Also, as in his uncle's instrument, the use of the divided stop in the San Giuseppe organ bears little likeness to the now rapidly-developing *registro partido* of Spain.

Table 3-7. Specification of the Graziadio Antegnati Organ at San Giuseppe (Brescia, Italy), 1581.

principale 16' (divided bass/treble)	flauto in XV 4'
ottave 8'	flauto in XII 5 1/3'
quintadecima 4'	flauto in VIII 8'
decima nona 2 2/3'	fiffaro 16'
vigesima seconda 2'	
vegesima sesta 1 1/3'	<b>Pedal:</b>
trigesima terza 2/3'	pull-down

<sup>53</sup> <http://iof.pipechat.org/ldshow.php?file=03900000107> (accessed 14 September 2014).

<sup>54</sup> Hans Klotz, et al., "Antegnati," *Grove Music Online* (accessed 4 November 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/00993>>.



The most vital information regarding the *registri spezzati* comes to us not from the most renowned organ builder of the Antegnati family, but rather, from its most important composer and musician: Graziadio's son Costanzo Antegnati (1549-1624). Costanzo was born in Brescia and worked with his father in his organ workshop during his youth, before becoming cathedral organist there from 1584 until his death. As an adult he continued to build organs, constructing several notable instruments, such as those at the Madonna della Steccata, Parma [1593], Santa Maria Maggiore, Bergamo [1593-4], and Sant'Agostino and Sant'Grata, Bergamo [1604], among others. One especially noteworthy instrument is the Basilica Cattedrale Metropolitana di Santa Maria Nascente organ, which he built around 1608 (see Table 3-8 below). This small, one-manual organ contained the divided principal utilized by previous members of the Antegnati clan, as well as another principal of either 16' or 8' pitch in the treble, and a divided 4' principal and 4' flute.

Costanzo was also a notable composer, producing several collections of madrigals, motets, masses, a book of psalms, and *ricercari* and *canzoni* for organ. Of all of his output, however, it is Costanzo's treatise *L'arte organica* that has come to be his most notable publication and, consequently, has provided the greatest insight into the Italian *registri spezzati*.

Table 3-8. Specification for the Costanzo Antegnati Organ at the Basilica Cattedrale Metropolitana di Santa Maria Nascente BB (Milan, Italy), c 1608.<sup>55</sup>

<b>Manual:</b>
principale 8' (divided)
principale grosso 16' or 8'? (treble)
fiffaro 8' (undulating)
ottava 4' (divided)
flauto in ottava 4' (divided)
flauto in duodecima 2 2/3'
quintadecima 2'
<b>Pedal:</b>
contrabassi 16' (downward extension of principale)

*L'arte organica* contains a variety of theoretical and practical information, including topics such as registration and tuning, as well as a collection of organ *ricercari*, published within *L'arte organica* as Antegnati's Op. 16. In addition, it also offers a passage on how a *registri spezzati* may be used—especially significant given that there are essentially no indications within extant Italian music to designate that it is for use with *registri spezzati*.<sup>56</sup> Written as a dialogue between father and son, the excerpt identifies Antegnati's instrument at San Marco in Milan (as well as briefly mentioning other Antegnati organs having *registri spezzati*) as an instrument utilizing the technique and also gives some insight into the

<sup>55</sup> Owen, *The Registration of Baroque Organ Music*, 52.

<sup>56</sup> Luigi Ferdinando Tagliavini, "The Art of 'Not Leaving the Instrument Empty': Comments on Early Italian Harpsichord Playing," *Early Music* 11/3 (July 1983), 299.

manner in which it was used for Italian organ compositions: according to Antegnati, for the performance of dialogues. The translated passage is as follows:

Father. This is why I told you one must get familiar with the place. There is also the one at S. Marco in Milan, modernized by me as you know, with divided stops, in this way:

Bass principal  
Descant principal  
Bass octave  
Descant octave  
Fifteenth  
Flute twelfth  
Bass octave flute  
Descant octave flute  
Fiffaro  
Descant principale grosso. The bass is played on the pedal.  
Nineteenth  
Twenty-second  
Twenty-sixth  
Twenty-ninth

Son. These appear to be fourteen stops; and why do it in this way?

Father. I did it thus on the request of those Reverend Fathers [and] also their organist, Mr. Ruggier Troffei, and Mr. Ottavio Bariola, and why? In order to play dialogues, for these stops are divided in the middle of the keyboard.

Son. There is also the organ of S. Giuseppe<sup>57</sup> in this city, which has a divided principal stop, which one day I was just about to play and enjoy; but I was confused because, pulling the first stop knob and thinking of the whole rank, there was no sound or answer, but from fourteen or fifteen pipes of the bass, so that I became then aware of the split, and pulled the next stop, so that I found it all finally.<sup>58</sup>

From this passage one can infer certain possibilities about the state of the *registri spezzati* in Italy. Antegnati says that he has modernized the instrument by including a number of divided stops. One can infer that, while previous Antegnati instruments

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<sup>57</sup> The organ built by Costanzo's father, Graziadio.

<sup>58</sup> Fenner Douglass, *The Language of the Classical French Organ: A Musical Tradition Before 1800* (New Haven: Yale University Press, 1965), 173-174. Translation by Douglass. This passage can be found in its original Italian at (accessed 5 January 2015) [http://www.meantone.altervista.org/antegnati\\_arteorganica.htm](http://www.meantone.altervista.org/antegnati_arteorganica.htm).

contained one or two *registri spezzati*, the addition of this quantity of divided stops was new to Italy and most likely not being employed by other Italian builders of the time, as there is no documentation to state otherwise. In addition, Costanzo asserts that the division of stops was included at the request of Ruggier Trofeo<sup>59</sup> and Ottavio Bariola in order that they might play dialogues.<sup>60</sup> As both Trofeo and Bariola were well-known organists in Italy at the time, it is possible that they were interested in trying the new technique to increase the tonal palette of the organs at their disposal. Unfortunately, while Costanzo states why the device was utilized in the San Marco organ (to play dialogues) and how it works (one stop for each half of the keyboard), he provides no specific examples of how dialogues may be executed using the *registri spezzati*.

Fortunately, in another passage from *L'arte organica* Costanzo provides registrational information and guidance on the use of the *registri spezzati*. He cites as the example the twelve-stop organ on which he played at the Duomo in Brescia, the very instrument built by Gian Giacomo Antegnati. Costanzo provides the stoplist, an inventory of possible registrations and, which combinations should be used for the specific sections of the Mass. In regards to the use of *registri spezzati* Costanzo gives two indications: 1) the divided principal (divided at *d'*, with the bass half being played by the pedals) may be

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<sup>59</sup> Thomas W. Bridges. "Trofeo, Ruggier," *Grove Music Online* (accessed 5 November 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/28411>>. Ruggier Trofeo (c 1550-1614) was a composer and organist from Mantua. By 1596 he had moved to Milan and assumed the post of organist at San Marco. During this time he secured the services of Costanzo Antegnati, asking that he rebuild the old organ with "an extravagant number of stops."

<sup>60</sup> Clyde William Young. "Bariolla, Ottavio," *Grove Music Online* (accessed 5 November 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/02061>>. Ottavio Bariola (1573-1596) was praised by Antegnati as one of the most significant organists and composers of his day. He published a collection of *ricercari*, *Ricercate per suonar l'organo*, as well as a collection of *canzoni* entitled *Capricci overo canzoni a quattro*; both collections are extant.

combined with the other 16' principal or, 2) the divided principal may be combined with the 4' flute. It is the second combination that Antegnati claims is useful in the execution of dialogues, as when the combination is played in the treble half of the keyboard it "makes a kind of accompanied harmony of two stops; then going down to the bass one hears the flute alone, thus one comes to make a dialogue with the help of the *contrabasse* of the pedal."<sup>61</sup>

While it appears that members of the Antegnati family were primarily responsible for the *registri spezzati* in Italian organ during this period, there are select other examples, including the instruments by Domenico Benvenuti at the cathedral of Orvieto (1579) and the Basilica di Santa Maria d'Aracoeli in Rome (1585/86). It is unclear what kind of *registri spezzati* Benvenuti built at Orvieto, but it is known that the organ was later updated by Vincenzo Fulgenzi in 1599/1600 and supplemented by a *flauto a cannello della quinta decima Bassi e Soprani* (a fifteenth chimney flute, divided between bass and treble). The two-manual Benvenuti basilica organ contained both principals and a *tromboni* (reed) divided between *c'/c#'* at the time of its initial construction.<sup>62</sup>

Other surviving examples of the *registri spezzati* date from the mid-to-late eighteenth century. These organs show that the tradition of division of a principal was supplemented in the eighteenth century with a variety of other divided reeds and color stops. Table 3-8 below shows the stoplist for the 1757 Pietro Nacchini (1694-1769) epistle organ at the Basilica della Misericordia in Sant'Elpidio a Mare. Nacchini was responsible for the construction of over 500 organs and was considered one of the most reputable

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<sup>61</sup> Fenner Douglass, *et al.*, "Registration," *Grove Music Online* (accessed 5 November 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/47609>>.

<sup>62</sup> Van de Pol, "Some thoughts on the divided keyboard," 595.

Venetian organ builders of his day. He built mostly one-manual instruments, as was the trend in Italian during this time, and most continued to include a divided principal and at least one divided color stop or reed, as seen in the Basilica della Misericordia organ. He also constructed two-manual instruments using the *registri spezzati*, including the *organo doppio* built for S Martino in 1737. In addition to the usual divided principal, the organ also had a divided *flauto in ottava*, *cornetta*, *violetta* (4', divided in the bass), and a divided *tromboncini* on the great manual. The second manual contained an undivided *principale* and four *ripieno* stops, all divided: an *ottava*, a *flauto in ottava*, a *cornetta* (treble), and a *tromboncini*.<sup>63</sup>

Table 3-9. Specification of the Pietro Nacchini Epistle Organ at Basilica della Misericordia (Sant' Elpidio a Mare, Italy), 1757.<sup>64</sup>

<b>Manual:</b>
principale 8' (bass)
principale 8' (treble)
flauto in XII 8'
ottava 4'
quintadecima
vigesimaseconda
vigesimasesta
vigesimanona

<sup>63</sup> Unlike in most Iberian instruments, the division of most *registri spezzati* instruments fell between *a* and *b*. This could vary by region, however, and some organs were built with divisions between *a* and *b-flat* or *g#* and *a*.

<sup>64</sup> <http://iof.pipechat.org/ldshow.php?file=03900000001> (accessed 10 November 2014).

cornetta
voce humana
tromboncini (bass)
tromboncini (treble)
contrabass
tamburo
<b>Pedal:</b> permanently coupled to manual

The 1760 instrument by Angelo Bossi at the Almenno San Salvatore in Bergamo, Italy (see Table 3-10 below) shows that some Italian organ builders did indeed choose to incorporate more than the typical divided principal and color stop. Angelo Bossi (1707-1776), like Costanzo Antegnati, came from a long line of organ builders, whose work could be found throughout Italy.<sup>65</sup> His instrument for Almenno San Salvatore in Bergamo contains numerous *registri spezzati*. Present are divided principals at the 8' and 4' pitches (in lieu of the split 16' or 8' single principal found in Italian organs of the sixteenth century). In addition to this staple, the organ also includes an 8' *fagotto* and a 4' *viola* in the bass and a 8' *tromba*, 8' *fluttoni*, 2' *ottavino*, *cornetta a tre canne* (a three-rank *cornet*), and an 8' *voce umana* in the soprano.<sup>66</sup>

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<sup>65</sup> Umberto Pineschi, "Bossi," *Grove Music Online* (accessed 12 November 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/40942>>. The Bossi family produced a number of notable organ builders from the 1550s onward. The building dynasty continued into the twentieth century with instruments by family members Carlo Vegezzi-Bossi (1900–77), Francesco Vegezzi-Bossi (1937–84), and Enrico Vegezzi-Bossi (b 1960).

<sup>66</sup> <http://iof.pipechat.org/ldshow.php?file=03900000110> (accessed 10 November 2014).

Table 3-10. Specification of the Angelo Bossi Organ at Almenno San Salvatore (Bergamo, Italy), 1760.<sup>67</sup>

principale 8' (bass)	tromba 8' (treble)
principale 8' (treble)	fluttoni 8' (treble)
ottava 4' (bass)	viola 4' (bass)
ottava 4' (treble)	ottavino 2' (treble)
quintadecima	cornetta a tre canne (treble)
decimanona	voce umana 8' (treble)
vigesimaseconda	terzamano
viegesimasesta	timballi
vigesimanona	
due di ripieno XXXIII-XXXVI	<b>Pedal:</b> pull-down
contrabassi 16'	
fagotto 8' (bass)	<b>Accessories:</b> distacco tasto pedale (detachment of key-pedal coupler)

This organ may possibly represent another source of Flemish influence on the *registri spezzati*, because Angelo Bossi was well aware of northern organ building trends. In 1728, members of the council of the Duomo in Bergamo called upon members of the Bossi family, including a young Angelo, to build an organ that rivaled the instrument at the Duomo in Como. No doubt older members of the family, and eventually Angelo, would have

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<sup>67</sup> Ibid.



been familiar with the instrument in Como, which they restored in 1719 and continued to maintain.<sup>68</sup>

The Duomo of Como instrument on which the Bossis were to model the new Bergamo organ was originally the work of Flemish builder Willem Hermans (1601-1683). Hermans, a native of Thorn, spent his early career in the Netherlands and possibly also worked briefly in northern France before moving to Italy in approximately 1648, where he was based at the Jesuit house in Genoa.<sup>69</sup> He quickly secured the contract for the Duomo in Como instrument and began construction in 1649. Though the case is the only part of this instrument that has survived to the present day, one can assume the Bossi family was well acquainted with the Flemish style of building and likely incorporated some of these traits into their own organs.<sup>70</sup>

It is known that Hermans had almost two decades of organ building experience by the time he relocated to Italy, and, to this end he was as responsible for the spread of *registri spezzati* in Italy as the Brebos family was in Spain. He likely introduced stops such as the *cornetto* (three or more ranks) and the *sesquialtera*, most of which were divided and located only in the bass or the treble.<sup>71</sup> Three extant stoplists for Hermans's instrument show that the builder continued to incorporate Flemish techniques throughout his career;

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<sup>68</sup> Guy Oldham and Umberto Pineschi, "Hermans, Willem," *Grove Music Online* (accessed 12 November 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/12867>>.

<sup>69</sup> For more information on the work of Hermans in Italy, see: Nicolaas Waanders, "Willem Hermans in Pistoia: Some Stylistic Considerations," *The Organ Yearbook* 23 (1992), 1-36.

<sup>70</sup> Ibid.

<sup>71</sup> Van de Pol, "Some thoughts on the divided keyboard," 595.

the Como organ is a prime example of the synthesis of Italian and Flemish trends.<sup>72</sup>

Although the organ at the Duomo in Como is no longer extant, there is one instrument that has survived: that found at the Church of Santo Spirito in Pistoia (see Table 3-11 below).<sup>73</sup>

The one-manual Pistoia organ contains a divided 2' flute, 8' trumpet, and 4' *violoncello* (a *regal* reed stop similar to the *tromboncini*) in the bass, as well as a three-rank *cornet* and an 8' trumpet and 8' *mosetto* in the treble. Such a specification would allow the player to have solo reeds in either bass or treble, while the *cornet* continues to be confined to the treble half of the keyboard. The presence of the 2' flute in the bass could be utilized to create an interesting voice exchange between the bass or tenor and the upper parts or could be combined with the bass reeds (trumpet and *mosetto*) to provide voicing support by means of a gapped registration (lacking one or more intermediary pitches).

Table 3-11. Specification of the Santo Spirito Organ, Willem Hermans (Pistoia, Italy).<sup>74</sup>

<b>Manual:</b>	
principal 8'	flute 2' (bass)
octavae 4'	trumpet 8' (treble)
fifteenth 2'	trumpet 8' (bass)
nineteenth 1 1/3'	mosetto (reed) 8' (treble)
two-and twentieth 1'	violoncello (reed) 4' (bass)

<sup>72</sup> Waanders, 24.

<sup>73</sup> Ezequiel Martín Menéndez, "Historic Pipe Organs in Argentina: A Hidden Treasure" (D.M.A. diss., Boston University, 2006), 15-16.

<sup>74</sup> Ibid., 16.

six-and twentieth 2/3'	
stopped diapason 8'	<b>Pedal:</b> C-f, short octave, permanently coupled to the manual
twelfth flute 2/3'	
cornet, 3 ranks (treble)	<b>Accessories:</b> 2 nightingales, drum, ventil, and tremulant

Hermans's adherence to the building techniques of his youth appears, in varying degrees, in all of the extant stoplists for his "Italian" instruments. Nicolaas Waanders summarizes Hermans's importance to the evolution of Italian organ building and design:

As the Langheduls and their predecessors had done for Parisian organs, so had Hermans provided a stimulus for change in certain schools of Italian organ building, although possibly in a way which had a more fundamental effect on the nature and structure of Italian instruments at that time, considering the technical and tonal evolution the Flemish organ had already undergone.<sup>75</sup>

Though there are select examples of other Italian instruments containing *registri spezzati*, these were also isolated and only much later did they bear any resemblance to their Spanish counterparts.<sup>76</sup> Indeed, while it seems that members of the Antegnati family were fans of the device, using it in other instruments designed and constructed by various members of the clan, few other builders, including Willem Hermans, adopted this technique and, as shown above, only a limited number of instruments spanning two centuries employed the technique.

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<sup>75</sup> Waanders, "Willem Hermans in Pistoia," 28.

<sup>76</sup> For other examples of such instruments see Owen, *The Registration of Baroque Organ Music*, 121-123.

## Germany and Austria

There is little evidence to suggest that the divided stop was ever an influential part of German or Austrian organ building, though certain examples of the device's usage can be seen from the sixteenth to eighteenth centuries. One early version was a split *regal* stop found in the 1558 Jörg Ebert instrument at the Hofkirche in Innsbruck. In addition to the occasional split reed, the divided or split *cornet* can be found in some instruments most likely attributable to influence from the Netherlands. A registration list from the Schlosskirche in Dresden, written by Herman Raphaëlsz Rodenstein in 1563, includes combinations for a divided trumpet stop.<sup>77</sup> Gottfried Silbermann's three-manual organ for the Dom in Freiberg (1714) contained a *Kornett V* (8') from *c'* in the *Hauptwerk* and a treble *echokornett V* (8') in the *Oberwerk*.<sup>78</sup>

A fascinating example of the use of the *registro partido* can be found in two organs installed (if not built) in Portugal by builders from Germany. The origin of these two instruments has been contended, but most agree that, while originally thought to be the work of the famous German organ builder Arp Schnitger (1648-1719), they were likely built by his pupil Johannes Heinrich Hulenkampf (João Henriques Hulemcampo).

Schnitger was one of the most important organ builders during the Baroque period. He is known mostly for his northern organs, which came to be characterized by "their elegant speech, the fine harmonic proportion between fundamental and overtones, the quality of the reed stops, the ability of principals and reeds to blend together and the wide

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<sup>77</sup> Van de Pol, "Some thoughts on the divided keyboard," 596-597.

<sup>78</sup> <http://iof.pipechat.org/ldshow.php?file=049000000378> (accessed 10 November 2014).

variety of flute stops.”<sup>79</sup> Schnitger was also responsible for establishing a large organ-building firm comprised of apprentices who worked from various shops in a multitude of cities. Over the course of his career it is believed that he trained some 50 pupils, many of which went on to start their own organ building workshops and continued to build instruments that adhere to the traditions carried out by their teacher; Hulenkampf is one example. Though many of these organs were built and installed in cities throughout northern Europe, particularly in the Hanseatic coastal area extending from Hamburg to Groningen, Schnitger’s firm was responsible for the construction of some 170 organs, many exported to Spain, England, and even Russia.<sup>80</sup>

Several of these organs would find their way to Portugal. Regardless of whether the instruments are true Schnitger organs or the works of Hulenkampf, the two instruments are no less interesting or pertinent to the history of the *registro partido*.<sup>81</sup> The first was originally built in 1701 for the Ingreja Franciscana in Lisbon.<sup>82</sup> According to L. A. Esteve Pereira, Hulenkampf signed a contract on 7 August 1711, for the construction of another organ in Lisbon, this one for the Franciscan monastery. From there the history of one of

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<sup>79</sup> Lynn Edwards, "Schnitger, Arp," *Grove Music Online* (accessed 22 October 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/25006>>.

<sup>80</sup> Ibid.

<sup>81</sup> Though many sources credit Schnitger with the building and exportation of the two instruments, many facts suggest that the instruments were more likely the work of Hulenkampf. Hulenkampf, originally from Hamburg, was a student of Schnitger and his mature building style very much followed that of his teacher's. Though it is not definitive, it is likely that Hulenkampf was responsible for the building (or, at the very least, the installation) of both the Faro and the Mariana organs given the builder's documented presence in Portugal during the 1710s and 1720s. He is known to have also been awarded the contracts for the building of instruments at the Franciscan monastery of Lisbon (1711, destroyed during the earthquake of 1755), Faro Cathedral (1715), and Carmel monastery in Lisbon (1722, also destroyed in 1755).

<sup>82</sup> The organ was restored by Von Beckerath in 1984 and Bernhardt Edskes in 2001.

these organs takes an interesting turn, one having been moved from its original home to the Cathedral da Sé in Mariana, Brazil! The travels of the organ are as follows:

In Lisbon in 1752, Father José de Oliveira bought an organ from the builder João da Cunha at a cost of 1,200,006 reis; the receipt is dated 26.06.1752 (Arquivo Historica Ultramarino). The organ was dismantled, packed and shipped to Brazil, the whole (including the case) in eighteen boxes, complete with instructions for reassembly, since the builder seems not to have taken the trip. Arriving at an unnamed Brazilian port, it was taken by road (together with a tower clock, cases of coins, papers, books) to Ouro Preto (present-day State of Minas Gerais) and from there to Mariana, a nearby town and capital of the diocese. In the cathedral the organ was re-erected and is still there today. It was said that the organ was a gift of King John V to the bishop but it cannot be so, since John V was already dead when the organ was bought; perhaps it was a gift of the next king, Joseph I (1714-1777). Either way, the organ was delivered to Mariana at a cost of 1,995,196 reis, the cost of carriage being higher than the cost of the organ itself. According to an inscription inside the organ, it was inaugurated in 1753.<sup>83</sup>

Esteves claims that the organ built by Hulenkampf for the monastery and the Mariana organ are indeed one and the same. This hypothesis is based on several clues present in the Mariana organ, most notable being the echo-like second manual found at floor level and lacking huge reeds or high-pitched mixtures (the style in Portugal at the time) and, perhaps most notably, the presence of the Franciscan coat-of-arms in the carvings at the top of the organ (see Figure 3-3 below).<sup>84</sup>

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<sup>83</sup> <http://www.arschnitger.nl/smar-port.html> (accessed 15 November 2014).

<sup>84</sup> Ibid.

Figure 3-3. Schnitger/Hulenkampf Organ at the Catedral da Sé (Mariana, Brazil), inaugurated in 1753.<sup>85</sup>



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<sup>85</sup> Photo courtesy of Eduardo Tropia.

Regardless of who built these two instruments, several conclusions can be drawn about the organs. It is likely that they were constructed by the same builder, whether Schnitger or Hulenkampf. Though the organs have both been renovated and restored since the early eighteenth century, it appears that both contained *registros partidos* at the time of their initial construction and installation.

The specification lists for both instruments are from a much later time period. For instance, the stoplist for the Mariana organ comes from another Portuguese organ builder, João da Cunha, in 1752, who states that the original “Schnitger” specification is as follows:

Table 3-12. Specification of the Schnitger/Hulenkampf Organ at the Catedral da Sé (Mariana, Minas Gerais, Brazil), 1701.<sup>86</sup>

<b>Hauptwerk:</b>	<b>Brustwerk:</b>
Principal 8' (façade)	Gedackt 8'
Gedackt 8'	Gedackt Flöte 4'
Octave 4'	Octave 2'
Flöte 4'	Spitzflöte 2 (treble)
Quinte 2 2/3'	Quinte 1 1/2'
Superoktave 2'	Sifflet 1'
Sesquialtera II	Sesquialtera II (bass, treble)
Mixtur IV-V	Dulzian 8' (bass, treble)
Fagott 16'	
Trompete 8' (bass/treble)	<b>Pedal:</b> no stops

<sup>86</sup> <http://iof.pipechat.org/ldshow.php?file=05501300002> (accessed 10 November 2014).



A Schnitger or Hulenkampf organ can also be found at Faro Cathedral in Faro, Portugal. This organ, restored by Flentrop in 1974, is of contentious origins, but it is another example of an organ built with the Iberian aesthetics in mind. The nomenclature is Portuguese and the organ was built with divided flutes, mixtures, and reeds, including some that are *en chamade* (see Table 3-13).

Table 3-13. Arp Schnitger or Johann Heinrich Hulenkampf organ at Faro Cathedral (Faro, Portugal), 1715-1716.<sup>87</sup>

<b>Manual I:</b>	<b>Manual II:</b>
flautado 16'	flautado 8'
flautado 8' (open)	flautado 4'
bordão 8'	flautilha 4' (treble)
oitava real 8'	quinta décima 2'
quinta real 2 2/3'	décima nona 1 1/3'
décima sétima 1 3/5'	vigésima segunda 1'
cheio IV	cheio II (treble)
cheio II	cheio III (bass)
corneta real V (treble)	cornetilha de ecos III (treble)
voz humana 8' (treble)	cornetilha de ecos II (bass)
trombeta real 8' (bass)	<b>Pedal:</b> contrabaixo 16'
clarim 8' (treble; en chamade)	<b>Couplers:</b> II to I; I to Pedal
trombeta de marcha 4' (bass; en chamade)	<b>Accessories:</b> rouxinol, 2 drums

<sup>87</sup> Ibid.

One final example (found in Table 3-14 below) shows the specification of the 1727 Balthasar Koenig instrument at the Basilika in Steinfeld, Germany. This stoplist is one of the few extant documents of the organ building style of Balthasar (1684-1756), who represents but one member of yet another important organ-building family. Balthasar, who was originally from Ingolstadt, eventually moved to the lower Rhine in an effort to be farther from his brother, Caspar, who was also an organ builder. Balthasar spent time working in the city of Münstereifel, before eventually moving to and working in Cologne after 1735. He was greatly influenced by French builders of the time; as a result, his instruments show an amalgamation of French and German styles.

Table 3-14. Specification of the Balthasar Koenig Organ at the Basilika (Steinfeld, Germany), 1727.<sup>88</sup>

<b>Rückpositiv:</b>	<b>Hauptwerk:</b>	<b>Brustwerk: (Enclosed)</b>	<b>Pedal:</b>
Hohlpfeiff 8'	Bordon 16'	Gedackt 8'	Principal 16'
Flaut Travers 8' (Treble)	Principal 8'	Flaut Dolce 4'	Subbass 16'
Praestant 4'	Holpfeiff 8'	Nasard 2 2/3'	Octav 8'
Flaut 4'	Viola da Gamba 8'	Sesquialtera II (Treble)	Octav 4'
Quint 2 2/3'	Octav 4'	Octav 2'	Bombart 16'
Octav 2'	Quint 2 2/3'	Vox Humana 8'	Trompet 8'
Cornet III (Treble)	Superoctav 2'	Tremolant	
Tintinabulum	Terz 1 3/5'		<b>Couplers:</b>

<sup>88</sup> <http://iof.pipechat.org/ldshow.php?file=049000000378> (accessed 10 November 2014).

II (Treble)			
Mixtur III 1'	Cornet IV (Treble)		Haupt to Rück
Cromhorn 8'	Mixtur III 1 1/3'		Rück to Pedal
Tremolant 8'	Cymbal III 2/3'		Haupt to Pedal
	Trompet 8'		
	Claron 4' (Bass)		<b>Accessories:</b>
			Nachtigall

While these select examples show that German organ builders did at times include divided stops in their instruments, they are certainly isolated incidences. The Schnitger/Hulemkampf organs were specifically designed with the Iberian aesthetic in mind, while the Koenig organ exemplifies the blending of German and French trends inspired by the builder's own influences.

## England

There is evidence that, like organs in Spain, some English organs of the sixteenth and seventeenth century were influenced by trends and builders from the Netherlands and this may have contributed to the small number of English instruments that incorporate the use of divided stops, particularly the *cornet*.

However, Flemish associations and influences on the English school of organ building are less clear. If documentation of organ specifications, especially those containing *medio registro* stops, is sparse in France, Italy, and the Netherlands, it is even more so in

England. According to Stephen Bicknell, by the sixteenth century English organ building was “at a low ebb.” By the late sixteenth century the state of organs was at its nadir due to disruptions caused by the Reformation; these troubles were often not unlike the disturbances found in the Netherlands during the same time period and organ building all but came to a halt in England between 1570 and 1600.<sup>89</sup>

Nonetheless, it is known that Flemish builders were active in England during the first half of the sixteenth century, and this could have resulted in the use of divided stops in England, although there is little hard evidence to support this speculation. One important connection is the Langhedul family, important Flemish organ builders active throughout the most of Western Europe. Michael Langhedul was responsible for some of the work done at Salisbury Cathedral in 1530, including the revisions made to its Trinity Chapel organ in 1531. There is also documentation that Michael Mercator of Venlo was one of Henry VIII’s organ makers. This is especially suggestive given that some of Henry VIII’s *regales* were known to have divided stops.<sup>90</sup> The 1795 George Pike organ found at the Parish Church in Hillsborough, County Down, United Kingdom (see Table 3-15 below), exemplifies the sporadic use of divided stops in later English organs. This organ has a divided 8’ principal, similar to those found in Italian organs, as well as a split *sesquialtera* III. These particular divided stops would lend themselves to the performance of cornet

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<sup>89</sup> Bicknell, *The History of the English Organ*, 65-66. While both England and the Netherlands had Calvinists roots and experienced much of the same turmoil following the Reformation, their situation in regards to organ culture varied in one substantial way. In the Netherlands, organs, seen as symbols of both religious and economic pride, were owned by the cities and, as a result, city officials refused their removal. This was not the case in England, and many organs were taken out of churches.

<sup>90</sup> Owen, *The Registration of Baroque Organ Music*, 19.

voluntaries or double voluntaries. One may suggest that the divided stops that are found, albeit sparsely, throughout England were ultimately the result of Flemish influence.<sup>91</sup>

Table 3-15. Specification of the George Pike organ at the Parish Church (Hillsborough, County Down, United Kingdom), 1795.<sup>92</sup>

stopt diapason bass 8' (divided at middle C)	fifteenth 2'
stopt diapason treble 8' (divided at middle C)	sesquialtera Bass III
open diapason 8'	sesquialtera Treble III
principal 4'	trumpet 8'
twelfth 2 2/3'	hautboy 8'
<b>Accessories:</b> hitch down swell pedal	

### The *Registro Partido* in the New World

As in the Iberian Peninsula, historic organs in the New World exist in differing levels of repair and playability. However, in the sixteenth and seventeenth centuries, organ culture became an important part of life in countries throughout South and Central America and Mexico, and with it, the incorporation of the *registro partido*. The first organs in these areas were imported from Western Europe and were most often small-scale

<sup>91</sup> Bicknell, *The History of the English Organ*, 63.

<sup>92</sup> The Pike organ was originally owned by Lady Arthur Hill of Hillsborough. It was moved to its present location in 1923 and was restored to its original condition by the firm of Noel Mander in 1970.

instruments that reflected the most progressive and fashionable styles of European organ building. Spanish or Portuguese builders in the New World from the end of the sixteenth century onward frequently incorporated the *registro partido*.<sup>93</sup>

Some of the first New World examples of *registro partido* instruments can be found in Mexico. According to John Fesperman, organs were in use within 50 years of Cortes's arrival to Mexico in 1519, and by 1561, the extravagant nature of liturgical music led Philip II to declare certain rules regarding these festivities.<sup>94</sup> Many notable instruments appeared by the mid-sixteenth century and the number of organs being constructed continued to increase over the course of the next century as indigenous Mexicans learned the trade from Spanish organ builders and craftsmen. As a result, most Mexican organs dating from the mid-seventeenth century onwards were the efforts of native craftsmen.<sup>95</sup>

One notable exception is the epistle organ built in 1689-90 in Madrid for Mexico City Cathedral by the Spaniard Jorge de Sesma (c 1660-1690). Jorge, son of the famous Zaragozan organ builder José de Sesma, was seemingly not as well known as his father and died before the Mexico City organ was finished. Tiburcio Sanz and his brother Félix

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<sup>93</sup> Much like in Portugal, the *medio registro* was a common practice in organs in the New World, but this seems to mostly reflect tradition and not a requirement of organ composers. Few *tiento de medio registro* pieces from the New World have survived and the genre does not figure prominently in the overall output of New World composers.

<sup>94</sup> John Fesperman, "The Mexican Legacy of Organs." *The Musical Times* 125/1692 (February 1984), 107. According to the author, by 1561 the musical activities of many Mexican churches had become so ostentatious that Philip II issued degrees to limit the amount of staff and musician an institution could hire, as well as the amount of money to be spent on musical and liturgical undertakings.

<sup>95</sup> Owen, "Organ." According to Owen it was not uncommon for young men from Mexican villages to be sent to Mexico City at their native city's expense to learn the trade of organ building or organ playing.

accompanied the organ to Mexico after Jorge's untimely death, and oversaw its subsequent installation.<sup>96</sup>

The organ consisted of two manuals, an *órgano mayor* and a second manual that consisted of *cadireta* and *positivo* divisions, both playable from this second manual. The *órgano mayor* alone included over thirty *registros partidos*. Though the organ would be renovated and updated by Joseph Nassarre in the 1730s,<sup>97</sup> the specification shows that divided stops continued to be found in organs built both in Spain and the New World, despite the fact that compositions intended for this type of keyboard never caught on with the same intensity in Mexico as they did in Spain.<sup>98</sup> Yet, it appears that doing away with the divided keyboard was not even an option for Jorge de Sesma, as shown by this excerpt from the original contract for the organ: "Documentation and specification of an organ which is to be built for the Holy Cathedral of Mexico City. First, a chest with 45 channels with toeboards and sliders, divided in the modern manner as the art [of organbuilding] requires."<sup>99</sup>

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<sup>96</sup> The organ would not be installed and playable until around 1693; it was later restored by Flentrop in 1978).

<sup>97</sup> The organ for the gospel side of the cathedral was built by Nassarre c 1735. Nassarre, a Spaniard by birth, lived and worked in Mexico for approximately ten years before dying during passage back to Spain.

<sup>98</sup> Edward Pepe, "A Spanish Organ for the New World: Jorge de Sesma in the Cathedral of Mexico City, *The Tracker – Journal of the Organ Historical Society* 51/1 (Winter 2007), 22.

<sup>99</sup> Ibid., 23.

Table 3-16. Specification of the Jorge de Sesma Epistle Organ at Mexico City Cathedral (Mexico City, Mexico), 1689-90.<sup>100</sup>

<b>Órgano mayor: (Bass)</b>	<b>Órgano mayor: (Treble)</b>	<b>Cadireta: (Bass)</b>	<b>Cadireta: (Treble)</b>
flautado mayor 8'	flautado mayor 8'	flautado bordón 8'	flautado bordón 8'
flautado bordón 8'	flautado bordón 8'	octave 4'	octave 4'
flautado menor (stopped) 4'	flautado menor (stopped) 4'	fifteenth 2'	fifteenth + nineteenth 2' + 1 1/3'
octave II 4'	octave 4'	nineteenth 1 1/3'	
twelfth + fifteenth 2 2/3' + 2'	twelfth 2 2/3'	lleno III + cimbala II 1'	lleno III + cimbala II 1'
	nineteenth 1 1/3'		corneta inglesa IV
lleno IV	lleno IV	trompeta de realejo 8'	trompeta de realejo 8'
cimbala III	cimbala III		
nazardo mayor 2 2/3'	nazardo mayor 2 2/3'		
nazardo mediano 2'	nazardo mediano 2'		
nazardo menor 1 3/5'	nazardo menor 1 3/5'		
	corneta magna VII		

<sup>100</sup> Ibid., 27.



	corneta de eco V	
octave (eco)	octave (eco)	
	tolosana III	
flabiolete	flabiolete	
trompeta real 8'	trompeta real 8'	
dulzaina (exterior)	dulzaina (exterior)	
	bajoncillo 4'	
	chirimía 16'?	
cascabeles III	cascabeles III	
contras (flautado 16')	contras (flautado 16')	
flautado bordón (transposing, 8')	octave (transposing, 8')	<b>Pedal:</b> 8 contras
octave (transposing, 4')	octave (transposing, 4')	<b>Accessories:</b> bird call, drums, tremulant
	tolosana III (transposing)	

The Mexican state of Oaxaca, located in southwestern Mexico and known for its artisans and indigenous peoples and culture, is home to a wonderful collection of some

seventy-two surviving historic organs, most constructed by indigenous builders from either Oaxaca or nearby Puebla, although clearly of Spanish design and ancestry.<sup>101</sup>

Though these organs are today in varying degrees of playability (only a few have been completely restored, despite recent interest in their renovation and conservation), a few generalizations can be made regarding their specifications and construction. Almost all adhere to the Iberian Baroque ideals: one manual instruments with short octaves, pedal pulldowns, and use of the *registro partido* (most divided at *c'/c#'*).<sup>102</sup>

One of the organs found at Oaxaca Cathedral effectively represents the region (see Table 3-17 below).<sup>103</sup> Constructed by Matías de Chávez<sup>104</sup> in 1712 using pipes from the 1570 organ originally installed in the cathedral, the instrument had gone through a number of modifications before it was restored to its eighteenth-century specification in the late 1990s and early 2000s (see Figure 3-4 below). The disposition of the bass and treble halves of the keyboard, which are mostly parallel (with the notable exception of a four-rank *cornet*, accessory stops, and a 4' *clarín* in the treble) reflects the eighteenth-century trend of having similar stops throughout the entire organ.

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<sup>101</sup> Most of the extant Oaxacan instruments date from the years between 1686 and 1891. During this long expanse of time Oaxaca was considered to be the third most vital musical center in New Spain, behind Mexico City and Puebla. For more information on the musical culture of Oaxaca, see the website of the Institute of Oaxacan Historic Organs: <http://www.iohio.org/eng/home.htm> (accessed 25 November 2014).

<sup>102</sup> Though most of these organ are divided at *c'/c#'*, there are several instruments in which smaller pipes are divided between *b/c'* while the sliders beneath these pipes break at *c'/c#'*.

<sup>103</sup> For a complete description of the organ at Oaxaca and its restoration project, as well as links to scholarship on the subject, see: <http://www.iohio.org/eng/organs1.htm> (accessed 25 November 2014).

<sup>104</sup> Chávez was one of several builders originally from Puebla, another important Mexican organ building center, who practiced their craft in Oaxaca.

Figure 3-4. Matías de Chávez Organ at Oaxaca Cathedral (Oaxaca, Mexico), 1712.<sup>105</sup>



<sup>105</sup> Photo courtesy of Alejandro Linares García.

Table 3-17. Specification of the Matías de Chávez Organ at Oaxaca Cathedral (Oaxaca, Mexico), 1712.

<b>Bass:</b>	<b>Treble:</b>
flautado mayor 8' (fachada)	trompeta real 8'
trompeta real 8'	diez y novena 1 1/3'
lleno III	lleno IV
diez y novena 1 1/3'	quincena 2'
quincena 2'	flauta en octavo 4'
octava 4'	octava 4'
tapadillo 4'	bardón 8'
bardón 8'	corneta IV
drum	flautado mayor 8'
	clarín 8' (fachada)
	pajaritos

Detailing a complete history of the *registro partido* in Mexico is difficult due to the fact that many of the indigenous builders active in the sixteenth and seventeenth centuries remain undocumented in organ contracts and church records. However, several famous organ building families are documented from the early seventeenth century onwards, including the Castros who were centered in Puebla, and Manuel Dávila (1780s), José Antonio Sanchez, and Manuel Suárez in Taxco in the early nineteenth century. The output of many of Mexico's finest builders, as well as the large extant collection of historic instruments in Oaxaca, shows that well into the nineteenth century Mexican organs continued to follow a now-archaic Iberian model stemming from the seventeenth and

eighteenth centuries: one- or two-manual instruments (often small in scope) with *registros partidos*.<sup>106</sup>

Examples of the *registro partido* can also be found in areas throughout Central and South America. Most often these instruments follow the same lineage of those divided-manual organs found in Mexico—instruments that were either built in Spain and exported to various New World countries or built by Spaniards or their indigenous pupils in the New World.

Though an exhaustive account of the numerous *registro partido* instruments that may be found in Central and South America is outside the scope of this document, selected representative examples will suffice. The first (found in Table 3-18 below) is seen in the specification of an organ built by Fray Pedro de Matos for the Convento de Santa Clara de Sucre in Chuquisaca, Bolivia. Bolivia, under Spanish control since the early sixteenth century, has few extant organs dating from the colonial period. There is little information about the Convento de Santa Clara de Sucre organ and its builder, though one may assume that Fray Pedro de Matos was likely of Spanish origin. His instrument, dating from the late eighteenth century, adheres to the earlier practices of Iberian organ building in terms of size and scope; even most Spanish and Portuguese organs would have adapted to the two- or three-manual scheme by this point. The organ possesses a mostly-parallel disposition, with the 2' *quincena* and 8' *trompeta* being parallel but divided. Similar organ specifications

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<sup>106</sup> In the nineteenth and twentieth centuries saw the decline of native building and the increase of imported European and American instruments. Fortunately, while years of neglect have led many native Mexican organs to be unplayable, a renewed interest in these instruments has led to a number of renovation and restoration projects in an effort to preserve Mexico's organ culture.

can be found in early organs in Bolivia, as well as organs in neighboring countries, most notably Peru.

Table 3-18. Specification of the Fray Pedro de Matos Organ at the Convento de Santa Clara de Sucre (Chuquisaca, Bolivia), 1791.<sup>107</sup>

<b>Full compass (registro entero):</b>	<b>Bass:</b>	<b>Treble:</b>
flautado 8'	quincena 2'	quincena 2'
octavo 4'	lleno III	corneta IV
	trompeta 8'	trompeta 8'
accessories: tabor, pajarillos		

The incorporations of the *registro partido* into organs throughout Western Europe, Mexico, and various countries of current Central and South America are the result of a complex and intricate series of cross-cultural influences and developments. Except in Spain, perhaps this complicated development is no more convoluted than in Argentina.

The development of an organ tradition in what is now present-day Argentina dates back to the beginnings of the Spanish colonial empire. Jesuit missionaries and other settlers, arriving in large numbers to the Río de la Plata basin from the sixteenth century onwards, promptly set about importing organs from Europe, as well as overseeing construction of small organs by indigenous craftsmen. Despite Argentina's frequent political and social turmoils, the country experienced waves of European immigrants and

<sup>107</sup> <http://iof.pipechat.org/ldshow.php?file=59100000002> (accessed 14 November 2014).

with them came some of Europe's most skilled architects, city planners, and craftsmen who aimed to erect a grand city that was unashamedly based on European archetypes: Buenos Aires.

Churches were no exception to this trend, and art, windows, and ornate altars were purchased in Europe and installed to remind citizens of home and to display newly-acquired wealth. Pipe organs were commonly imported, as no strong tradition of indigenous or localized organ building had developed since the colonial era. Like various other extravagant contributions made to the city, no expense was spared when purchasing organs; products of the greatest European builders were commonly installed in the churches of Buenos Aires. The organs were reflections of the *barrios* in which they were built and the wealth of the upper-class minority responsible for their installation; new organs were frequently built from the eighteenth century until the economic crisis of the 1940s halted such large-scale investments, and few new organs have been built since that time.

The Catedral Metropolitana, located in the heart of the Buenos Aires city center, possesses an early-nineteenth century organ, by an unknown builder, which shows that the *registro partido* continued to play a role in the organ culture of Argentina just over a decade before the country would achieve its independence. The organ was built around the turn of the nineteenth century and, before being moved to its present home in the cathedral in 1822, was originally installed in the Hospital de Santa Catalina (see Table 3-19 below).

Table 3-19. Specification of the “Colonial” Organ at the Catedral Metropolitana (Unknown Spanish Builder; Buenos Aires, Argentina), c 1800.<sup>108</sup>

<b>Manual (bass):*</b>	<b>Manual (treble)*</b>
bourdon o diapason bajos 8’	diapasón sopranos 8’
	bourdon sopranos 8’
octava bajos 4’	octava sopranos 4’
tapadillo 4’	tapadillo 4’
quinta 2 2/3’	quinta 2 2/3’
octava bajos 2’	octava sopranos 2’
cymbala 1 1/3’	cymbala II 1 1/3’
<b>Pedal:</b> permanently coupled to manual	
<b>Accessories:</b> tremolo, ruiseñor	

\*divided b/c

No documentation is extant regarding the instrument’s origins; however, according to a study by Dr. Claudio Di Veroli there are a few, as of yet, unexplored clues pertaining to the organ’s history:

The opinion of two authorities is relevant here: Prof. Enrique G. Rimoldi—organist of the Buenos Aires Cathedral—who carried on restoration and maintenance work on the instrument, and Miguel P. Juárez—organist at the Basilica of S. Antonio de Padua in Buenos Aires... They both believe that the instrument belongs to the late Baroque aesthetic, with some elements of French style mainly visible in the decoration of the case. Prof. Juárez once told me that the organ could well be the work of Louis Joben, a builder from Southern France—Province—who is known to have worked in Argentina [and Venezuela] in the late Colonial times, around 1800. Several recent discoveries support the French origin. Some details also lead Prof. Rimoldi to

<sup>108</sup> <http://iof.pipechat.org/ldshow.php?file=05400000102> (accessed 14 November 2014).



believe that is it very likely that the instrument, whoever its maker was, was built locally in Buenos Aires.<sup>109</sup>

If the instrument was indeed built by a French builder, then the *registro partido* instrument now located at the Catedral Metropolitana in Buenos Aires shows that the divided stop had already been ingrained in the Spanish colony, possible, given the other examples of *registro partido* instruments sprinkled throughout the country, or exhibits the complicated dissemination of the technique due to myriad foreign influences. Regardless of whether or not Joben was the builder of the Metropolitana instrument, its mere existence, and that of the examples cited from Bolivia and Mexico, shows the lasting power of a technique that would long outlive the genre that would employ it.

### **Reasons for the *Medio Registro***

One can ascertain a number of reasons, both practical and aesthetic, why the *registro partido* developed and why it became so overwhelmingly popular in Spain. Unfortunately, if de Lupe was the first to employ the technique, he left no written documentation of what inspired him to do so, not surprising given that organ building was a technical art pursued by craftsmen, not writers. However, given the varying degrees to which the device was used in the years spanning 1567 to the turn of the seventeenth century and the personal preferences in regards to the selection of divided registers, it is likely that the foremost reason for the development of the technique was its ability to expand the tonal capabilities of even the smallest one-manual instruments. Indeed, the

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<sup>109</sup> Claudio Di Veroli, *On the Origin and Original Specification of the Baroque Organ in the Buenos Aires Cathedral*. (Bray: 2002).

driving force behind the inclusion of *registros partidos* was the preoccupations of the organ builders to augment and multiply the registrational contrasts available to the player.

The incorporation of the split keyboard increased the flexibility and economy of any instrument; from this standpoint, the *registro partido* (not unlike the horizontal reeds that would later be incorporated into most Spanish instruments) was a practical contrivance.<sup>110</sup> Simply by utilizing a few registrational “tricks,” the Spanish were able to produce sounds once limited to large-scale instruments. Not unlike the “dummy” façade pipes that gave the appearance of grandeur, the split keyboard brought with it an effective illusional power that appears to have appealed to the Spanish sensibilities.<sup>111</sup>

Divided stops also often meant two separate wind chests, one for each half of the keyboard. Air was fed through narrow channels under low pressure. Using this design meant that lower wind pressure (approximately half of the usual supply) was needed for any given stop, making the sound more gentle—a quality already characteristic of Iberian organs—and the calcants’ job significantly easier. Most importantly, the wind supply was also steadier given that instabilities produced by the playing of chords in one hand would not significantly affect the wind supply of the other half of the manual.<sup>112</sup>

The narrow channels utilized in soundboard construction necessitated equally narrow pallets.<sup>113</sup> Resultantly, the narrow pallets had a marginal surface area and the low

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<sup>110</sup> [http://organartmedia.com/downloads/Historic\\_Spanish\\_organs.pdf](http://organartmedia.com/downloads/Historic_Spanish_organs.pdf) (accessed 14 September 2014).

<sup>111</sup> Ibid.

<sup>112</sup> Barbara Brewster Hoag, *The Performance Practice of Iberian Keyboard Music of the Seventeenth Century* (Ph.D. diss., New York University, 1980), 111.

<sup>113</sup> Pallets, located in the wind-chest of tracker instruments, are valves that are activated when a stop is pulled and keys are pressed. When this occurs, the pallet permits wind to enter the channel of a particular key and into the foot-hole of the pipes for a particular stop, allowing it to sound.

air pressure meant little resistance from the key action, allowing for a lighter tracker action.<sup>114</sup> The lack of an arduously resistant action allowed for the virtuosic style of Spanish Baroque organ compositions and the technique that was required to perform it. As a result, the divided register was a convenient addition for organ builder, buyer, and user alike.<sup>115</sup>

Perhaps another reason for the development and use of the *registro partido* is related to the use of other instrumentalists in the Spanish church. According to Santiago Kastner, the development and the eventual popularity of the *registro partido* may have been a consequence of the organ's ability to replicate the wind instruments, and their multiple parts, used in the Spanish church, particularly during the sixteenth and seventeenth centuries.<sup>116</sup>

Many documents from the time convey the idea that the organ is the one true liturgical instrument, a thought that remains prevalent in some churches; some state that the organ has a variety of different stops, allowing for both solo playing as well as the effective accompaniment of vocalists. The organ has the upper hand on other instruments because, obviously, it is a polyphonic instrument. In Francisco Valls's *Mapa armónico* (c 1745), he states that the many different reeds of the organ make an acceptable substitution

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<sup>114</sup> Owen, "Organ."

<sup>115</sup> [http://organartmedia.com/downloads/Historic\\_Spanish\\_organs.pdf](http://organartmedia.com/downloads/Historic_Spanish_organs.pdf) (accessed 14 September 2014).

<sup>116</sup> Luis Felix Merino, "The Keyboard Tiento in Spain and Portugal from the 16<sup>th</sup> to the early 18<sup>th</sup> Century," 75. According to Merino, this idea is further reinforced by documentation of organ playing being supported by wind instruments. For example, it is likely that performances combining organ and wind instruments took place during Correa de Arauxo's tenure at the Collegiate Church of San Salvador in Seville.

for the various instrumentalists who, in the past, would have been hired for the Church's various feast days and special occasions.<sup>117</sup>

It is therefore very possible that the use of the *registro partido* may have a correlation with the widespread and early use of instrumentalists and minstrels in Iberian churches. According to Kenneth Kreitner, Spain was unique in that it most likely preceded the remainder of Europe in its use of instrumentalists in a liturgical setting. Kreitner states that "instrumental accompaniment of sacred music may in fact have been fairly common south of the Pyrenees as early as the lifetime of Dufay (1397-1474)."<sup>118</sup>

Though there is much evidence that fifteenth-century Spanish monarchs employed both large chapel choirs and groups of loud and soft instrumentalists (*ministriles*), it is unclear as to whether the instrumentalists and vocalists performed together in the royal chapels.<sup>119</sup> It is also unclear how the organ was employed in conjunction with the instrumentalists.

Nonetheless, documentation offers a few clues as to the roles of both the organ and instruments. Sources often state that instrumentalists were frequently reserved for solemn feast days and other important celebrations, many of which would have included a parade-like procession to the church. For instance, in 1420 Alfonso V of Aragon ordered for his

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<sup>117</sup> Calvert Johnson, ed., *Historical Organ Techniques and Repertoire: An Historical Survey of Organ Performance Practices and Repertoire, vol. 1: Spain (1550-1830)* (Boston: Wayne Leupold Editions, 1994), 6.

<sup>118</sup> Kenneth Kreitner, "Minstrels in Spanish Churches, 1400-1600," *Early Music* 20/4, Iberian Discoveries I (November 1992), 533. While it appears that instrumentalists in Spanish churches occurred early and frequently, that is not to say that instrumentalists were not being employed elsewhere. There is documentation since the early fifteenth century that instrumentalists were widely used in religious processions (as part of important feast or other liturgical days) throughout Europe and that these processions often ended in the instrumentalists playing in churches. Documentation from Spain differs in that these instrumentalists are cited to have been a regular part of the church service.

<sup>119</sup> *Ibid.*, 534.

chapel *orguens petits que sien intonats ab los ministres* (“small organs tuned to the minstrels”).<sup>120</sup> In November 1589, there is evidence in Barcelona that the *Te Deum*—a section of the liturgy usually employing *alternatim* practice with organ and voice—was played with both “loud” and “soft” instruments.<sup>121</sup> This alludes to the fact that the most common instruments were “loud” instruments such as brass and shawms.<sup>122</sup>

These references help establish the long history of instrumentalists in the Spanish church. Though documentation of their use is sporadic during the fifteenth century, by the late sixteenth century many large churches employed full-time musicians in this capacity. Table 3-20 below shows that many of the main churches and cathedrals would go from hiring a few instrumentalists to hiring a core group of musicians—a church band of sorts—that would greatly contribute to the musical and ecclesiastical life of these cities.<sup>123</sup>

Table 3-20. List of Spanish Cathedral Bands, 1526-1612.<sup>124</sup>

City:	Year Established:
Seville	1526
Toledo	1531
Granada	1561-62

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<sup>120</sup> Ibid. This implies that the organ was an important contribution to the royal instrumentalists, but there is no documentation to support whether this means that the instrumentalists played in the chapel services or that the organ was also used for secular occasions.

<sup>121</sup> Ibid., 537.

<sup>122</sup> Ibid., 534.

<sup>123</sup> Ibid., 537.

<sup>124</sup> Ibid.

Jaén	By 1540
Palencia	1567
Sigüenza	1554
Córdoba	1556
Ávila	By 1557
Valencia	1560
Salamanca	By 1570
Huesca	1578
Valdemoro (parish church)	By 1582
Seu d'Urgell	By 1612

In addition to the hiring of church bands, there is documentation of a logical hiring progression on the part of some large parish churches and cathedrals, including some listed above, in which they began by having instrumentalists perform occasionally for special celebrations and important feast days, then decided to hire a group of staff musicians, including *ministriles*. According to Kreitner, this process is documented in at least six Spanish cathedrals before the end of the sixteenth century.<sup>125</sup> Records from Toledo Cathedral show that instrumentalists were used in processions and the liturgy as early as the early thirteenth century; in 1531 the same cathedral granted 20-year contracts to a trombone, alto shawm, and treble shawm players and their assistants.<sup>126</sup>

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<sup>125</sup> Ibid., 538.

<sup>126</sup> Ibid.

The connection between the hiring of church instrumentalists and parish and cathedral bands to the rapid development of the organ *registro partido* during the second half of the sixteenth century is perhaps tenuous: no sources have come to light that express any direct relationship between the two. However, it is logical that the incorporation of a device such as the *registro partido*, one that expanded the tonal and registrational palette of a small-scale organ, would provide a convincing and practical substitute for musicians in smaller parish churches or institutions that simply could not afford to employ staff instrumentalists. In addition, if indeed there is an association between the two, it is perhaps Spain's willingness to include instrumentalists in the liturgy and religious occasions that contributed to the eventual popularity of the *registro partido*.

Another possible stimulus for the divided keyboard or stop is the use of paired imitation in vocal and keyboard writing, namely, keyboard intabulations of vocal works. Almonte C. Howell Jr. supports this theory and surmises that it was likely for composers to play pieces that use paired imitation on a divided keyboard, performing the paired voices on different stops. He states that "it would have been a delightful effect if answering passages between paired upper and lower voices could have been heard in contrasting tone colors, even when performed at a single keyboard."<sup>127</sup> This hypothesis seems to be further supported by Santiago Kastner, who uses as his basis Antegnati's *Arte orgánica* and the passage referring to the *registri spezzati*. Antegnati simply states that the device is utilized *per far dialoghi* ("for dialogues").<sup>128</sup> Consequently, if composers realized that

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<sup>127</sup> Almonte C. Howell Jr., "Paired Imitation in 16<sup>th</sup>-Century Spanish Keyboard Music." *The Musical Quarterly* 53/3 (July 1967), 396.

<sup>128</sup> Ibid.

compositions utilizing paired imitation lent themselves to be effectively performed on a divided keyboard, it might explain the rather slow development of the *tiento de medio registro* in the time between the advent of the divided keyboard in the last half of the sixteenth century and the overwhelming abundance of specifically *medio registro* pieces in the 1620s.

Though little documentation exists from the time of the advent of the *registro partido* to provide exact reasons for the technique's invention and development, there are numerous practical and aesthetic reasons why the *registro partido* was utilized. The greatest benefit of the *registro partido* was to increase flexibility and tonal and registrational capabilities of the instruments, despite their small scale. The practicalities of two windchests and the resultant mechanical ramifications of a lighter tracker action meant that playing was both easier and allowed for greater virtuosity. It is possible that these new capabilities meant that churches and their organists were able to replicate the sounds of wind bands that were frequently employed at larger parish churches and cathedrals in Spain's most important cities. Consequently, this would also have made it easier and more cost effective for smaller churches or those with fewer resources to make the best out of the purchase or renovation of an organ. Finally, as a result, organists and composers no doubt found ways to perform dialogues, early *tientos* and other keyboard pieces (including many early pieces that frequently used pair imitation), with a multitude of new color combinations, an exploration that would eventually result in the seventeenth-century development of a genre devised with the *registro partido* in mind: the *tiento de medio registro*.



## The *Registro Partido* from the Seventeenth Century Onwards

Throughout the final years of the sixteenth century, the incorporation of *registros partidos* in Spanish organs continued to grow in popularity. Though it would take another half century for the idea to become widespread throughout Spain and into Portugal and the New World, the technique had gained sufficient popularity throughout Castile in the early seventeenth century that there was no turning back; the *registro partido* quickly became one of the defining characteristics of the Spanish organ.

An example of a fully divided instrument, which was built only a decade before Correa's *Facultad orgánica* (1626), cemented the *registro partido* as a crucial aspect of the proper execution of Spanish organ music. Such an organ could be found at the Burgos Cathedral in the Chapel of the Condestable. In 1615 it had the following specification:

Table 3-21. Specification of the Chapel of the Condestable Organ, Burgos Cathedral (Burgos, Spain), 1615.

<b>Bass:</b>	<b>Treble:</b>
flautado 8'	flautado 8'
octava 4'	octava 4'
quincena 2'	docena 2 2/3'
decinovenas 1 1/3'	quincena 2'
lleno	deciseptena 1 3/5'
tapadillo 4'	lleno
	flauta 4'
	Pedal: 8 wooden pegs (pulldowns)

The Burgos example demonstrates the quintessential divided keyboard instrument that became common in Castile during the opening decades of the seventeenth century. The instrument is a one-manual, small-scale organ that is completely divided and has no independent pedal; it lacks reeds, but the presence of divided mixtures (the *lleno*) and various mutations allow for a variety of color combinations (for examples of these registrations see Chapter 5).

Until the mid-to-late seventeenth century the incorporation of *registros partidos* continued to be confined primarily to organ builders in Castile, in organ building hubs such as Burgos. Though some organists in Catalonia were beginning to recognize the efficacy of the device, the prevailing trend of producing two-manual instruments meant that the value of the *registro partido* was slower to be recognized in Catalonia than in Castile.

One example of the Catalonian diffidence toward the trend can be found in the small-scale 1648 Francesch Galtayres organ at the parish church of the Monestir de Montserrat near Barcelona. The organ consisted of the following seven registers: 1) *flautat de fusta* 8' (stopped), 2) *flautat de la caxa* 4', 3) *octava de la caxa* 2', 4) *quinsena de la caxa* (a stop of two ranks making a 1 2/3', possibly divided), 5) a *simbalet* (three ranks, divided to make a *gaytilla* in the bass and the treble), 6) *dotsena nasarda* 1 1/3', and 7) *quincena nasarda* 1'. The organ also contained *peaynes* (pedals), which most likely were nothing more than pulldowns from the manual. This specification is a typical example of a Catalonian organ disposition from the mid-seventeenth century. The restricted presence of the *registros partidos*, in this case, dividing ranks to produce differences in the bass and

treble half of the keyboard, shows that builders from Catalonia were still hesitant to use the device with the same abandon as builders in others areas of Spain.<sup>129</sup>

Eighteenth-century instruments in Spain and Portugal shared many of the same characteristics. It was not uncommon for organ builders from Galicia, as well as other important centers of organ building in Spain, to be active in Portugal as well. Indeed, by the beginning of the eighteenth century almost all Portuguese organs had incorporated the *registro partido*; however, unlike Spanish instruments, many of which had expanded to two manuals or more by mid-century, the majority of Portuguese organs continued to be smaller-scale, one-manual instruments. To this end, the *registro partido* was especially suited to these instruments in comparison to the much larger Spanish instruments that continued to employ the technique.<sup>130</sup>

The incorporation of the *registro partido* continued into the late eighteenth century (and, in select organs, into the nineteenth), though its continued use was mostly due to tradition and not necessity. By that time, the pinnacle of *tiento* composition was long over, and yet impressive instruments utilizing the *registro partido* continued to be built throughout both Spain and Portugal.

Eighteenth-century examples of organs with divided stops can be seen in the remarkable instruments by the builder Jordi Bosch. He warrants mention here as an innovative builder who was ahead of his time, even building an organ with a 25-rank mixture (1104 pipes!) at the young age of 26. At the same time he exemplifies the deeply-

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<sup>129</sup> Wyly, "The Pre-Romantic Spanish Organ," 49-50.

<sup>130</sup> Gerhard Grenzing, "The Evolution of the Spanish Organ: Some Observations," *ISO Journal*, vol. 7 (2006), 71.

rooted traditions of Spanish organ building, incorporating many of the integral parts of the Spanish tradition to his instruments.<sup>131</sup>

Bosch, born in Palma de Mallorca in 1739, came from a long line of talented organ builders. His father Matheu was an organ builder (today best known for his 1746 instrument at the monastery of Sant Geromi in Palma, Mallorca), and his grandfather was a well-respected organ and harpsichord builder. By age twelve his parents had both died, leaving him to work as an assistant to his uncle Pedro Joseph Bosch, and perhaps also to the builder Leonardo Fernández Dávila, who was active in and around Granada. The young Bosch grew quickly as a builder and produced his first instrument in 1762 for the parish church of Binissalem, followed by an organ—his first full-scale instrument—built in 1765 for the Dominican monastery of Santo Domingo in Palma de Mallorca. In addition to the monstrous 25-rank mixture, the two-manual organ—based at the 16' pitch level—contains nine ranks of horizontal trumpets. The *baixon* pipes face east, the *trompa magna* pipes face west, and the *trompa real* are found in the center. Two ranks of short-length reeds, *regalies* and *dolcaina*, are located directly above the organist's head. The organ also includes a ten-rank *cornet*. The variety of stops at the player's disposal is only rivaled by the grandiose case, adorned with elaborate carvings and statues (Figure 3-5 below).

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<sup>131</sup> Ibid., 79. These components can be found in Bosch organ that now resides in the parish church of San Andrés in Santanyí, Majorca. For more information about this instrument, including a complete stoplist see <http://www.grenzing.com/organosshow.cfm?id=10&ip=100>.

Figure 3-5. Façade of the Jordi Bosch Organ Originally Built for the Dominican Monastery of Santo Domingo (Santanyí, Mallorca), 1762.<sup>132</sup>



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<sup>132</sup> Photo courtesy of Emma Whitten.

Bosch constructed a number of magnificent instruments, including the Santanyí organ, but perhaps none was as great as that for the Cathedral in Seville (1778-93). Unfortunately, this instrument was destroyed by an earthquake in 1888 and there is little extant information describing the organ. According to Gerhard Grenzing, we do, however, know about some aspects of the organ and its specification. He states that the organ was exceedingly large and contained a large number of *registro partido* stops. The wind system of the organ was renowned for its ingenuity: “By walking up and down a large board, a man moved the pumps and this administered air to the large bellows, ‘of a new kind’ [with parallel folds?], supplying air for 15 minutes for the most complete organ in Spain with 106 divided stops and almost 5000 pipes.”<sup>133</sup>

Table 3-22 below shows the specification of the Bosch organ found at the Palacio Real in Madrid. This impressive instrument consists of an *órgano mayor* and an *órgano de ecos*, both divided. The disposition is largely parallel on both halves of the respective manuals and the considerable number of stops means that no common reed or *lleno* stop was excluded.

Table 3-22. Specification of the Jordi Bosch Organ at the Palacio Real de Madrid (Madrid, Spain), 1778.<sup>134</sup>

<b>Órgano mayor (bass):</b>	<b>Órgano mayor (treble):</b>	<b>Órgano ecos (bass):</b>	<b>Órgano ecos (treble):</b>
flautado 26 (16')	flautado 26 (16')	flautado violón 8'	flautado violón 8'

<sup>133</sup> Grenzing, “The Evolution of the Spanish Organ,” 80.

<sup>134</sup> Gerhard Grenzing, “Jordi Bosch: The Unknown Master, *ISO Journal* (2003), 118.

flautado 13 (8')	flautado 13 (8')	tapadillo 4'	tapadillo 4'
octava 4'	octava 4'	quincena 2'	quincena 2'
violón 26, de madera (16')	violón 26, de madera (16')	lleno de 3 hileras	lleno de 3 hileras
violón 13, de madera (8')	violón 13, de madera (8')	nazardos de 3 hileras	octava de corneta 4'
tapadillo 4'	tapadillo 4'		corneta de 4 hileras
	flauta dulce, madera a 2	trompeta real 8'	trompeta real 8'
docena y quincena II	docena y quincena		imitación voz humana en tono de trompeta magna 16'
lleno de 5 hileras	lleno de 5 hileras	voz humana a la francesa 8'	voz humana a la francesa 8'
	corneta de 6 hileras		
corneta tolosana de 3 hileras	corneta tolosana de 3 hileras		
	trompeta de 52, de madera (32')	<b>Pedal:</b>	Accessories:
trompeta real 8'	trompeta real 8'	contras de 26 (16')	pajaritos
fagot de madera 8'	oboe, de madera 8'	contras de 13 (8')	acoplamiento II/I
orlo de 26	orlo de 26 (16')	tambor y timbal	acoplamiento

(16')			permanente OM/Ped
	trompeta 16'	temblor suave	
clarín de bajos 8'	clarín 1 (8')	temblor fuerte	
violeta 2'	clarín 2 (8')		
chirimía 4'	chirimía 4'		
orlo de 13 (8')	orlo de 13 (8')		
viejos, de madera 8'	viejas, de madera 8'		

The variety of different *registro partido* stops utilized in eighteenth century organs far surpassed anything yet seen. However, despite the ever-growing diversity of possible stops at a builder's disposal, many eighteenth-century organs differed from earlier instruments in that they frequently had parallel dispositions on the bass and treble halves of the keyboards. A few builders continued to create non-parallel dispositions in an effort to avoid certain high-pitched stops in the treble and to create suitable registrational combinations in both halves of the manual.<sup>135</sup> By the mid-eighteenth century a majority of *registro partido* instruments would have parallel dispositions, such as in the Felipe and Francisco de Urarte Organ at San Andrés (see Table 3-23 below).

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<sup>135</sup> This means that some registers would double back at the octave halfway through the rank and thus repeat the same octave rather than continuing up the scale. This doubling back is easy to spot in the pipework, since the row of pipes does not progress in a smooth angled line.



Table 3-23. Specification of the Felipe and Francisco de Urarte Organ at the Church of San Andrés (Villabuena de Álava, Spain), 1735.<sup>136</sup>

<b>Bass</b>	<b>Treble</b>
flautado 8'	flautado 8'
octava 4'	octava 4'
tapadillo 4'	tapadillo 4'
docena 2 2/3'	docena 2 2/3'
quincena 2'	quincena 2'
decinovenas 1 1/3'	decinovenas 1 1/3'
lleno en 22a 1'	lleno en 12a 2 2/3'
címbala III	címbala III
sobrecímbala III	sobrecímbala III
trompeta Real 8'	cornetas (Clara VI-Eco V) 8'
dulzaina 8'	trompeta Magna 16'
bajoncillo 4'	trompeta Real 8'
chirimía 2'	dulzaina 8'
	clarín 8'
<b>PEDAL: (6);</b> tambours, timbales	

## Summary

The years following the death of Antonio de Cabezón in 1566 brought about many changes in the organ culture of Spain. Iberian composers, organ builders, and craftsmen

<sup>136</sup> <http://iof.pipechat.org/ldshow.php?file=03400100002> (accessed 14 January 2014).

progressively made new innovations and devices that would forever change the overall makeup of the Spanish pipe organ. The addition of the *registro partido* from the mid-sixteenth century onwards would become one of the most recognizable elements of the Spanish organ through the eighteenth century.

The technique appears to have been adopted by Spanish and Netherlandish builders who recognized its pragmatic benefits and were keen to explore the registrational capabilities of the small, mostly one-manual instruments common to Castile at this time. Correa de Aruaxo's publication of his *Facultad orgánica* in 1626 would, for the first time, provide a genre that could only be adequately played on a divided-manual organ and this resulted in the inclusion of divided stops in almost all new Castilian organs and the renovation of many older instruments to include them. Though the trend was slower to move to Catalanian and Portuguese organs, the technique would slowly diffuse to the entire Iberian Peninsula before the end of the seventeenth century.

The divided stop was not confined to the Iberian Peninsula and would be incorporated into organs throughout all of Western Europe during the sixteenth to eighteenth centuries. Some native builders in France, England, Germany, and Italy adopted the technique; as in Spain, this was most likely the result of Flemish influence. However, despite various examples in each of these countries, the device appears to have been more experimental outside of Spain and never caught on with the same vigor.

There exists little documentation about the rationale behind the use of the *registro partido*, but the practical and aesthetic reasons show that efficiencies in windchest construction, cost, and registrational capabilities would forever change the design of the Spanish organ and, resultantly, its literature. Most importantly, the *registro partido* would

bring about the development of the *tiento de medio registro*, a genre that could only be performed effectively on the organ and came to permeate the Spanish organ literature for over a century.

## Chapter 4

### The Literature

#### **Advent of the *Tiento de medio registro***

Like the elements and overall makeup of the Spanish organ, the *tiento* of the late-sixteenth and early-seventeenth century went through a period of transition after Antonio de Cabezón's death in the 1560s. The *tiento* composers of the late sixteenth century slowly incorporated Baroque elements into their pieces, and new styles of the genre, most notably the *tiento de falsas* (the Spanish equivalent of the Italian *durezze e ligature* style), the *tiento de medio registro*, and the introduction of the monothematic *tiento*, added exciting new formal and stylistic components to the *tientos enteros* and *llenos* of the first generation of *tiento* composers. Of these, the *tiento de medio registro* would come to represent the most pervasive and significant contribution to the literature.<sup>1</sup>

Though there are examples of the *registro partido* dating from before Cabezón's death, the fact that there are no *medio registro* compositions by Cabezón, Bermudo, Santa María, de Soto, or any of the other well-known Iberian composers of the early- to mid-sixteenth century supports the notion that the *tiento de medio registro* was a late sixteenth-

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<sup>1</sup> It should be noted that while the incorporation of the *registro partido* in Spanish organs and the resultant composition of *medio registro* pieces were widespread throughout Spain in the seventeenth century, there were still a number of composers whose output does not reflect the widescale popularity of this new genre. Some of whom, including Bernardo Clavijo del Castillo (c 1545-1626) and José Lidón (1748-1827), were major figures in Spanish organ music. Given that the works of Lidón were firmly rooted in the styles and aesthetics of the eighteenth century, the lack of *medio registro* pieces in their outputs is perhaps not surprising. The absence of such pieces in the works of Clavijo is peculiar.

century invention. However, tracing the genre's development is difficult given that there are only a few extant examples from the late sixteenth century to the time of Sebastián Aguilera de Heredia and Correa de Arauxo.<sup>2</sup>

The *tiento de medio registro* (known interchangeably as the *medio registro*, *medio registro*, *tiento partido*, or *partido*) employs the use of the divided keyboard, the *registro partido*, that would slowly dominate Castilian, and eventually Catalanian, organs. The composers of these pieces employed a virtuosic solo in either treble or bass.<sup>3</sup> From this point onwards the *registro partido* and the *tiento* pieces written for organs containing this device became an essential characteristic of Spanish organs.<sup>4</sup>

Given the growing popularity of the divided keyboard, it is not surprising that the *tiento de medio registro* figured prominently in the output of most Iberian organ composers of the seventeenth century, including some of the most renowned of the day: Sebastián Aguilera de Heredia (1561-1627), Pablo Bruna (1611-1679), and Francisco Correa de Arauxo (1584-1654). The composers of this time produced *tientos* that were broader in scope and experimentation than those written by the previous generations. While most of them also wrote *tientos* in the older, "Cabezonian" style, many of their compositions show a complexity and scope that is unique to this new epoch of *tiento* composers—and to those later musicians who would emulate their styles. The composers of these *tiento de medio registro* compositions exploited the many capabilities of the divided keyboard and, as a

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<sup>2</sup> Barbara Brewster Hoag, *The Performance Practice of Iberian Keyboard Music of the Seventeenth Century* (Ph.D. diss., New York University, 1980), 111.

<sup>3</sup> Calvert Johnson, ed., *Historical Organ Techniques and Repertoire: An Historical Survey of Organ Performance Practices and Repertoire*, vol. 1: *Spain (1550-1830)* (Boston: Wayne Leupold Editions, 1994), 11.

<sup>4</sup> José López-Calo, *Historia de la música Española*, vol. 3. *Siglo XVII* (Alianza Editorial, S.A. Madrid, 1983), 125.

result, their works show great diversity in form and texture; they also include references to hymn tunes (most commonly the Spanish *Pange lingua*), chants, and borrowed musical sources that provide interesting insights into the cross-cultural music currents of the day.

The compositions of later generations of *tiento* composers, including Juan Bautista Cabanilles (1644-1712), Antonio Martín y Coll (*d* after 1733), José Elías (*c* 1678-*c* 1755), among others, show a lesser, but continued interest in the *tiento*. The *tiento* underwent a process of divergence and variation in which the genre and its various subgenres lost their sense of standardization; the term gradually comes to encompass various forms, lengths, and compositional techniques (as seen in the diverse styles and forms utilized by Cabanilles).<sup>5</sup> As a result of this increasing disparity in formal structures, by the late eighteenth century, the *tiento*, including the *tiento de medio registro*, grew less popular and was largely replaced by bipartite sonatas, in the tradition of Domenico Scarlatti, of composers such as José Lidón and Antonio Soler. Accordingly, these modifications in compositional trends and preferences led to changes in organ building and a slow but steady movement away from the divided keyboard.

Despite the genre's eventual decline, there is no doubt that it came to represent a significant contribution to Spanish organ repertoire. The overwhelming popularity of the genre from the sixteenth through eighteenth centuries resulted in nearly fifty percent of

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<sup>5</sup> Luis Felix Merino, "The Keyboard Tiento in Spain and Portugal from the 16<sup>th</sup> to the early 18<sup>th</sup> Century" (M.A. thesis, University of California Santa Barbara, 1968), v.

the extant Castilian organ literature (and a lesser, but existing portion of the Catalanian and Portuguese repertoire) being written for *registros partidos*.<sup>6</sup>

### Francisco de Peraza and the Peraza Dynasty

The earliest extant composition composed explicitly for *registro partido* is often considered to be the *Medio registro alto, Tono I* (for divided keyboard, composed using the first ecclesiastical mode) by “Pedraza.”<sup>7</sup> This piece survives in the seventeenth-century manuscript *Tomo 30* held in the El Escorial archives.<sup>8</sup>

While the piece has most often been attributed to Francisco de Peraza (1564-1598), its origin is confusing given the reputation of many members of the Peraza family (and their propensity for naming Peraza children after their parents or other family members!). Indeed, the last name Peraza represents an entire dynasty of musicians active from the second half of the sixteenth through the first half of the seventeenth century. Despite extensive research done by Robert Stevenson, Dionisio Preciado, Louis Jambou, and others, an exhaustive geneology of the family has not yet been produced. Fortunately, certain

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<sup>6</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 122. There appears to be no extant *medio registro* literature stemming from the New World, despite organ builders in colonial areas utilizing the *registro partido* in their designs. See page 153 above.

<sup>7</sup> Ibid., 105.

<sup>8</sup> Robert Stevenson, “Peraza,” *Grove Music Online* (accessed 7 November 2012) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/21289pg2>. The piece was first printed in L. Villalba Muñoz’s *Antología de organistas clásicos* (Madrid, 1914, rev. 2/1971 by S. Rubio).

biographical details of the most important members of the Peraza family have been recorded.<sup>9</sup>

Born in Salamanca, the eldest Francisco spent his youth in the cities of Seville and Toledo and showed an informed and mature musical style from an early age. Francisco came from an important family of organists and minstrels whose founder, Juan Peraza, was a shawm player who worked in Valencia, Toledo, and Seville.<sup>10</sup> In addition to Francisco's mother, a virtuoso musician in her own right, the most important members of the family were two brothers, Francisco and Jerónimo, who each had two sons named Francisco and Jerónimo.<sup>11</sup>

Despite the complicated geneology, it is apparent that the elder Francisco was the leading composer of the Peraza lineage. At the age of twenty he took part in an examination for an organ post at Seville Cathedral formerly held by the renowned Diego del Castillo.<sup>12</sup> It seems that Francisco was the overwhelming favorite for the post and Cardinal Rodrigo de Castro, the Archbishop of Seville requested from the cathedral chapter a prebend of 200 ducats annually for the young organist. Francisco Pacheco, Francisco's first biographer, was the author of the *Libro de descripción de verdaderos retratos, de ilustres y memorable varones* (Seville, 1599)—a collection of portraits of eminent people of his day. He described the occasion as follows:

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<sup>9</sup> For further genealogical information on the Peraza family, see: Preciado Dionisio, "En torno al organista Francisco de Peraza I (1564-1598) y a 'su' tiento de medio registro alto de tono I," *Nassarre* 14/2 (Enero 1998), 299-311.

<sup>10</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 105.

<sup>11</sup> Preciado, "En torno al organista Francisco de Peraza I (1564-1598)," 2.

<sup>12</sup> Castillo left the post to become an organist at the Royal Chapel in Madrid.



Finding that Guerrero [1528-1599]<sup>13</sup> was confronting the competitors with some of the hardest tests of skill known to musicians, but that scarcely had he announced a task before Francisco de Peraza had accomplished it to perfection, even adding his solution of variants to the problem, the cardinal was overwhelmed with admiration of such skill found only in the rarest prodigies.<sup>14</sup>

Guerrero himself is often cited as saying that Francisco had *un ángel en cada dedo* ("an angel in every finger").<sup>15</sup> In his first two years at Seville his salary was increased several times and soon the young organist's earnings almost equaled that of the chapelmaster.<sup>16</sup> His talent was widely known and it appears that the only issue he encountered was the frequent requests to perform elsewhere, invitations that often resulted in Francisco overstaying his allowed leaves from the cathedral. He was dismissed briefly from his post in June 1590 for one such incident, but was restored to his position before the end of the year.<sup>17</sup> From this point onward, Francisco remained at his post in Seville until his death at the young age of 34 in 1598.<sup>18</sup>

Much of the information regarding Peraza's life, including a portrait (the only image of an early Spanish organist that is known to be extant, seen in Figure 4-1) is from Pacheco. The biographer mentions various compositions by Francisco—*villancicos*, *chansonetas*,

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<sup>13</sup> Francisco Guerrero held the position of *maestro de capilla* at Seville.

<sup>14</sup> Stevenson, "Peraza."

<sup>15</sup> Mariano Pérez, *Diccionario de la Música y los Músicos III (P-Z)*. Colección Fundamentos 89 (Madrid: Ediciones Istmo, S.A., 2000), 32.

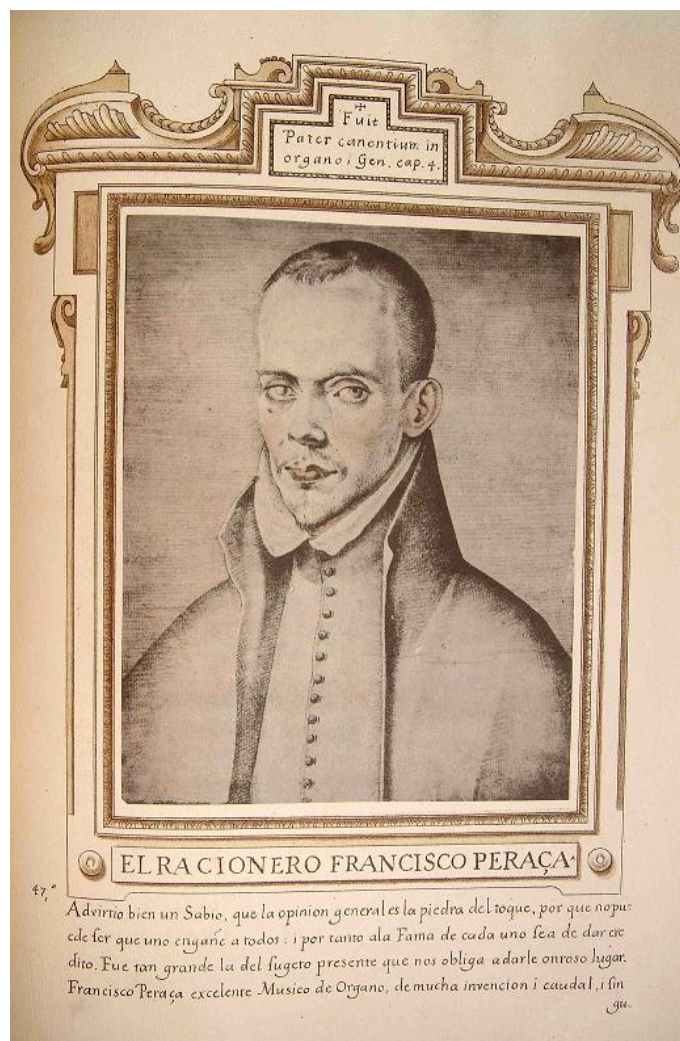
<sup>16</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 105.

<sup>17</sup> Stevenson, "Peraza."

<sup>18</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 105.

*motets, sainetes* (a genre of theatrical music), and a multitude of keyboard works—but none, other than the unverifiable *medio registro* piece, have survived to the present day.<sup>19</sup>

Figure 4-1. Portrait of Francisco de Peraza from Pacheco's *Libro de descripción de verdaderos retratos, de ilustres y memorable varones*, Seville, 1599.<sup>20</sup>



<sup>19</sup> Stevenson, "Peraza." There are two pieces attributed to a Peraza in the Ajuda copy of Correa's *Facultad orgánica*. Kastner believes that these pieces are possibly the work of one of the younger members of the Peraza family, most likely Jerónimo, as he surmises that the piece was not composed at 1620. He states that this is likely if one assumes that the compositions were copied from a collection of *tientos* made by the younger Francisco, whose greatest influence would have been on composers in and around Toledo.

<sup>20</sup> Francisco Pacheco, *Libro de descripción de verdaderos retratos, de ilustres y memorable varones* (Seville, 1599). Available in PDF via [fama2.us.es/fde/ocr/2006/libroDeDescripcion.pdf](http://fama2.us.es/fde/ocr/2006/libroDeDescripcion.pdf).

The *medio registro de alto*<sup>21</sup> work in El Escorial's *Tomo 30* exhibits a very clear and important departure from the *tiento lleno* compositions of the early to mid-sixteenth century. Imitation, which was so important to Cabezón, Santa María, and other *tiento* composers of the early to mid-sixteenth century, plays a secondary role in the *Medio registro de alto*. The piece begins with a short, whole-note subject beginning in the tenor voice, followed by an entrance only a measure later in the alto voice. In m. 6 the bass voice enters and this is quickly followed by the solo entrance in m. 10, as seen below in Example 4-1.

Example 4-1. Attributed to Francisco de Peraza, *Medio registro alto*. 1° tono, mm. 1-13.<sup>22</sup>



Though the piece begins, as was typical of the period, with four-voice imitation, virtuosic figuration is the focal point, which represents a departure from the compositional

<sup>21</sup> Pieces labeled as *de alto* generally feature a solo line found in the lower (alto) range of the right hand, but are frequently considered to be synonymous with *de tiple* compositions.

<sup>22</sup> Felipe Pedrell, ed., *Antología de organistas clásicos españoles*, vol. 1 (Madrid: Ildefonso Alíer, n.d. [c 1908]), 54. Available online via [http://imslp.org/wiki/Antolog%C3%ADa\\_de\\_organistas\\_cl%C3%A1sicos\\_espa%C3%B1oles\\_\(Pedrell,\\_Felipe\)>](http://imslp.org/wiki/Antolog%C3%ADa_de_organistas_cl%C3%A1sicos_espa%C3%B1oles_(Pedrell,_Felipe)>).

style of earlier *tiento* composers. The florid figuration is sequential and scalar and goes through various harmonies. Peraza's figuration frequently alludes to the initial thematic material. The composer utilizes diminution and syncopation to alter the original theme and to add both rhythmic and melodic interest. The solo line, as well as the corresponding accompaniment, also includes triplets to provide further rhythmic variation (Example 4-2 below). In m. 63 Peraza introduces figuration that presents the initial theme in quasi-inversion (Example 4-3). According to Apel, this passage-work is akin to the *Spielfiguren* of Sweelinck; he goes so far as to pose the question of whether it was Peraza or Sweelinck who was first responsible for the device!<sup>23</sup>

Example 4-2. Attributed to Francisco de Peraza, *Medio registro alto*. 1° tono, mm. 33-37.<sup>24</sup>



The *tiento* includes three different themes, which alternate with virtuosic episodes and imitative restatements of the theme. The themes appear first in the lower three voices.<sup>25</sup> The accompanimental voices also contain brief sections of contrapuntal material,

<sup>23</sup> Willi Apel, "Spanish Organ Music of the Early 17<sup>th</sup> Century," *Journal of the American Musicological Society* 15/2 (Summer 1962), 176.

<sup>24</sup> Pedrell, *Antología de organistas clásicos españoles*, vol. 1, 55. Available online via [http://imslp.org/wiki/Antolog%C3%ADa\\_de\\_organistas\\_cl%C3%A1sicos\\_espa%C3%B1oles\\_\(Pedrell,\\_Felipe\)](http://imslp.org/wiki/Antolog%C3%ADa_de_organistas_cl%C3%A1sicos_espa%C3%B1oles_(Pedrell,_Felipe)).

<sup>25</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 76-77.

such as those found in mm. 27-31, mm. 37-42, and mm. 53- 62, which include suspensions resembling the *de falsas* that became popular in the early seventeenth century.

Example 4-3. Attributed to Francisco de Peraza, *Medio registro alto*. 1° tono, mm. 60-68.<sup>26</sup>



It is from this starting point that the essential components of the *tiento de medio registro* slowly developed into the formal structural principles found in the works of Aguilera, Correa de Arauxo, and other members of the next generation of *tiento* composers.

While it is difficult to discern whether or not Francisco de Peraza was the composer of the earliest extant *medio registro* piece, Pacheco lends credence to the hypothesis that he was indeed. He praises Peraza, “who was the originator of the mixing of organs, who with unfailing good taste played thousands of florid passages, which he contrived in such a way

<sup>26</sup> Ibid., 56.

that to him alone Spain owed grace and dexterity on the organ, delightful novelties along with a variety of extended fugues never seen in Europe before his advent.”<sup>27</sup>

The *retrato* goes on to give insight into Peraza’s style (in regards to his clavichord playing) and provides more laudatory passages of his abilities as a musician. Pacheco states:

It was a marvel that on such an imperfect instrument as the clavichord [*monacordio*] he played so excellently and in such superior fashion that he imitated on it Julio Severino’s vihuela-playing. [The latter was] an excellent musician with [an instrument of] eight courses, the greatest then known. Similarly he imitated the playing of Juan Leonardi of the harp, so called for his excellent performance on that instrument. He [Peraza] imitated the half registers of vox humana and ‘tenor by treble’ that are found among all organ *misturas*—being the first inventor of them—with such speed and dexterity that he interpreted on the monacordio whatever was suggested to his fancy...<sup>28</sup>

In regards to the *medio registro*, Pacheco go on to state that Peraza was the creator of the genre, stating that “he played two thousand *flores*” in such pieces.<sup>29</sup>

While there seems to be no way to confirm or deny whether or not Francisco may have been the author of any early compositions for *registro partido*, it seems possible given the various accounts of his musical talent. One example can be seen in a letter written by

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<sup>27</sup> Santiago Kastner, *Contribución al estudio de la música española y portuguesa* (Lisboa: Editorial Ática, 1941), 163, quoted from *Libro de Descripción de Verdaderos Retratos de Ilustres y Memorables Varones* (Seville, 1599): *que fué el primer inventor de las mixturas de órganos, que tocaba siempre de tan buen gusto dos mil flores que inventó de manera que a él solo debe España la gracia y primores en el órgano, las novedades gustosas con la variedad de fugas largas, hasta él nunca vistas en Europa.*

<sup>28</sup> Beryl Kenyon de Pascual, “Clavicordios and Clavichords in 16<sup>th</sup>-Century Spain. *Early Music* 20/4, Iberian Discoveries I (November 1992), 616: *Era cosa maravillosa que en un instrumento tan imperfecto como el monacordio tañía con tanta excelencia y superioridad, que imitaba en el el tañido de la vihuela de Julio Severino, excelente musico de ocho ordenes, y el mayor que se conocio en aquellos tiempos; y assi mesmo imitaba el tañido de Juan Leonardi de la harpa, que tomo su apellido de la excelencia que tenia en aquel instrumento; imitaba los medios registros de voz humana y tenor port tiple, que se hallan en todas las misturas de los organos, siendo el primer inventor de ellas, con tanta velocidad y destreza en las manos, que ejecutaba en el monacordio cuanto se le ofrecia a la fantasia...*

<sup>29</sup> Apel, “Spanish Organ Music,” 175-176.

Alvaro Gómez de la Cruz, who welcomed Francisco to his new position at Toledo Cathedral in 1637. According to Barbara Hoag, Francisco, “after writing that he considered their post to be the most prestigious of all such positions, he assured the chapter that they could expect him to do everything in the best of good taste because of his previous experience in the Royal Chapel, and because he considered himself to be more nearly the equal of Francisco de Peraza than any other Spanish organist.”<sup>30</sup>

The piece in question is no doubt a mature work that exhibits its author’s contrapuntal abilities and knowledge of current musical trends and techniques. According to Stevenson, “the many sequential passages in the right hand give the work a Baroque flavor, placing Francisco de Peraza ahead of his time if it is truly his.”

Stylistically it appears that Francisco de Peraza may have been the composer of the *medio registro* piece found in *Tomo 30*. However, certain issues exist that make a certifiable attribution difficult. First, most of the compositions found within the *Tomo 30* manuscript collection date from after Peraza’s time, the majority written after the turn of the seventeenth century. A few notable composers, including Gabriel Serrano,<sup>31</sup> Bernardo de Clavijo,<sup>32</sup> and Sebastián Aguilera de Heredia, were active composers at the same time as Peraza, but Clavijo and Heredia’s most mature works, possibly including those found in *Tomo 30*—also date from after 1600.

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<sup>30</sup> Jaime Moll, “Documentos para la historia de la música de la catedral de Toledo,” *Anuario Musical* 13 (1958), 164.

<sup>31</sup> Serrano’s presence in *Tomo 30*, which may date from before 1600, provides the most convincing support that Francisco de Peraza is the author of the first *medio registro* piece.

<sup>32</sup> Clavijo’s most important appointment came in 1602 when he was employed as organist to Philip III—a post he held until 1627. It was during this time that most of his substantial compositions were written.

Second, the works found within the collection are largely by composers representing the Zaragozan school of organ composition, in addition to composers that were associated with El Escorial. As such, their pieces are grouped together in *Tomo 30* and exhibit the importance of these Zaragozan organists. Compositions by musicians connected to El Escorial—Aguilera de Heredia, José Jiménez, and Pablo Bruna—represent two-thirds of the music in the collection. According to Barbara Hoag, the presence of composers centered in Zaragoza and Madrid creates a sort of geographic radius that might make it possible for composers from Palencia and Toledo to be included. She hypothesizes that works by Francisco de Peraza the elder, who spent his entire career in Seville, would most likely not be included given that Seville lies outside the compositional circles represented in the collection.<sup>33</sup>

This theory has two clear limitations. The first is the inclusion of a piece by the composer Juan Sebastián, who was employed as organist at the Valencian church of Corpus Christi during the years 1628-1639. While Valencia lies outside the area established by the other compositions found in the collection, Sebastián is known to have worked earlier in this region.<sup>34</sup>

The second is the supposition that Francisco and his music would not have been known outside of Seville. From the sixteenth century onward, Spain differed in one significant way from England, France, and, to a lesser extent, Germany. These countries had few developed few regional musical traditions that transcended the great urban centers; in general, the most important artistic hubs were the capital cities and major university

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<sup>33</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 108.

<sup>34</sup> Ibid.



towns. Spain, due to its many and highly varied regions, had over two dozen dynamic and developed regional centers.<sup>35</sup> Add this to each region's immense individual cultural pride and the result is a Spain with many musical sub-cultures, a diversity that still exists today. Composers from these different musical hubs frequently circulated their works, often on their own initiative and for their own advantage, to other musical centers or institutions in other cultural regions or hubs. Sometimes this music was distributed in the form of copies; others were distributed in the form of the original manuscript, making the task of tracing the lineage of music and even composers especially difficult.<sup>36</sup> Given this cultural and regional phenomenon, that Francisco was frequently asked to perform elsewhere, one may assume that his recurrent travels and resultant widespread popularity, documented by Pacheco and others, certainly made the inclusion of one of his pieces in *Tomo 30* not only understandable, but very possible.

Recent research has only muddled the issue further. At the turn of the twenty-first century, new information regarding the Peraza *tiento* was discovered at the monastery of San Zoilo de Carrión in Palencia. The revelation by Ismael Fernández de la Cuesta of several previously-unknown documents was the result of a restoration of certain areas of the building. Among these manuscripts was a loose-leaf folio, containing several compositions written in Spanish-style *cifra*, the tenth of which is entitled *quarto tono media dulcayna de Peraza a dos tiples*. Although the paper is badly worn and the *cifra* blurred in some areas,

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<sup>35</sup> Robert Stevenson, *Spanish Cathedral Music in the Golden Age* (Berkeley: University of California Press, 1961), 297.

<sup>36</sup> For more information on the dissemination of music manuscripts throughout Spain, see: Paul R. Laird, *Towards a History of the Spanish Villancico* (Warren, Michigan: Harmonie Park Press, 1997), 179-184. Also see: Miguel Querol Gavaldá, "Corresponsales de Miguel Gómez Camargo," *Anuario musical* 14 (1959), 165-178; José López-Calo, "Corresponsales de Miguel de Irizar," *Anuario musical* 18 (1963), 197-222; and, López-Calo, "Corresponsales de Miguel de Irizar (2)," *Anuario musical* 20 (1965), 209-233.

de la Cuesta was able to transcribe and recompose the *tiento*. Upon further study of the composition, he came to the following conclusion: “due to the stylistic complexity of this *tiento*, we may assume that its current aspect is the result of several modifications carried out by subsequent organists who would introduce in it elements of modernity.”<sup>37</sup>

De la Cuesta claims that it is possible that the original work was composed by the elder Francisco, but that various changes, including the presence of two solo soprano lines, adapting up-to-date devices and styles, were perhaps incorporated into the piece over time—resulting in a finished product that reflected a later time than that of Francisco the elder.<sup>38</sup>

De la Cuesta contends that the *tiento* found in the San Zoilo de Carrión folio can be explained by the tendency of composers prior to the nineteenth century to be consumed by contemporary music and not music of the past. De la Cuesta suggests that Cabezón, Morales, Bach, and others who influenced the following generations of composers, saw the need to create music that was applicable to their present-day purposes. Their students, colleagues, and protégés, in turn, copied the techniques of their mentors.<sup>39</sup>

The uncertainty surrounding the piece is furthered due to the other important members of the Peraza family. While the Francisco described by Pacheco was certainly the most famous and documented of the Perazas of the time, there were two other Perazas, Jerónimo II, introduced by the elder Jerónimo—Francisco I’s brother—as his nephew in a

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<sup>37</sup> Ismael Fernández de la Cuesta, “Un *tiento* de Peraza entre papeles de San Zoilo de Carrión,” *Catedrático del Real Conservatorio de Música de Madrid, Anuario Musical* 56 (2001), 33.

<sup>38</sup> *Ibid.*, 38.

<sup>39</sup> *Ibid.*

recommendation letter to a church in Palencia, and another Francisco, possibly also a nephew, who were employed as organists and regarded as talented musicians and composers at roughly the same time.<sup>40</sup>

The second Jerónimo made a name for himself in his own right. He was employed as an organist in Palencia from 1594 until his death in 1604, and was notable enough throughout the region that he frequently received requests from surrounding areas to play for important occasions. One such example was in 1600, when the performer was called to Valladolid, an important center of organ playing and composition, that requested his presence for the arrival of the king in the city.<sup>41</sup>

The second Francisco, illegitimate son of the elder Francisco and the noblewoman Juana Bautista de Escobar was also an accomplished musician, who was employed by Toledo Cathedral from an unknown date until 1637.<sup>42</sup> Though little more is known of this Peraza, there are a few extant sources that would suggest he was a composer and musician of great ability. Records from the expense accounts of João IV of Portugal list that four hundred *reais em prata* were paid to the organist Francisco Perassa in 1636. It is possible that this payment was for a collection of compositions entitled *Tentos de tecla, trasladados de hum liuro, que Francisco de Peraça, tangedor e racioneiro de Sé de Toledo trouxe a Vila Viçosa de varios autores* (Tientos for Keyboard, copied from a book that Francisco de Peraza, keyboard player and racionero of the cathedral in Toledo, compiled at Vila Viçosa

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<sup>40</sup> Santiago Kastner, "Palencia, encrucijada de los organistas españoles del siglo XVI," *Anuario Musical* 14 (1959), 159.

<sup>41</sup> Ibid., 159.

<sup>42</sup> De la Cuesta, "Un tiento de Peraza," 37.

by various composers), found in the index of João IV's royal library. Unfortunately the library containing the music manuscript was destroyed in the 1755 Lisbon earthquake and, thus, there is no way of knowing if the manuscript contained any pieces—*tientos de medio registros* or otherwise—by the compiler himself.<sup>43</sup>

Despite differing opinions on the subject, the stylistic characteristics imply that the composition could have been written by any of the several notable members of the Peraza family. In the end, however, most scholars continue to point to the elder Francisco de Peraza as the composer of the *medio registro alto de primer tono* found in El Escorial's *Tomo 30*.

### **The *Tiento de Medio Registro* in the Seventeenth Century**

Despite the lack of literature dating from before the turn of the seventeenth century, the appearance in various sources of the *tiento de medio registro* attributed to Francisco de Peraza shows that this *tiento* subgenre originated in the last decades of the sixteenth century. One may infer that these decades introduced slow and progressive changes to this type of composition, developments that would continue in leaps and bounds until the second half of the next century.

The turn of the seventeenth century brought with it a new generation of composers of *tientos*, including the well-known Sebastián Aguilera de Heredia and Francisco Correa de Arauxo, who had an interest in exploring the *registro partido* that was becoming a common inclusion in most newly-built and renovated Spanish organs. These pieces introduced the

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<sup>43</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 108.

monothematic *tiento* and a burgeoning of diverse compositional styles within the genre. Pieces became longer, sometimes consisting of upwards of 300 measures, and the focus shifted from contrapuntal writing to the florid figuration that came to epitomize the *medio registro* literature.

In the second half of the seventeenth century, technological changes to the Spanish organ, including the appearance of the *órgano de ecos* in the 1660s and the addition of horizontal reeds to many organs in the last half of the century, resulted in the addition of new expressive and timbral elements for *tiento* composers such as Juan Cabanilles, whose copious output contributed a significant number of works for *medio registro*. Many of these composers explored the full potential of the late-seventeenth century organ, while combining stylistic components of Cabezón and Correa, as well as introducing new structural forms that would bring them fame in their own right.<sup>44</sup>

### Sebastián Aguilera de Heredia

Sebastián Aguilera de Heredia (1561-1627) was born and educated in Zaragoza and is today recognized as one of the first and most representative organ composers of the Aragonese school of composition, as well as perhaps the most significant organ composer of the early seventeenth century before Correa. It is probable that in his youth he was under the tutelage of the musicians Melchor Robledo and Juan Ortiz at La Seo Cathedral. He became organist at San Pablo Apóstol in Zaragoza sometime before 1584, the year he

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<sup>44</sup> Ben Ridler and Louis Jambou, "Tiento," *Grove Music Online* (accessed 7 November 2012) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/27944>.

received holy orders from the same institution. In 1585, he assumed the position of organist at Huesca Cathedral, a post he would maintain until 1603 when he accepted the prestigious post of organist at La Seo.<sup>45</sup> During his tenure he was responsible for the maintenance and renovation of the cathedral's organs.<sup>46</sup> In late 1620, he recommended that his student José Ximénez be employed as assistant organist; Ximénez would assume the role of principal organist after his teacher's death in 1627.<sup>47</sup>

Partially filling the void left by Cabezón's death in 1566, Aguilera was one of the few well-known Spanish organists to write for both organ and voice, though all of his pieces are sacred in nature.<sup>48</sup> His organ works, represented by *tientos de falsas* (he appears to be the first composer to use this denotation), *medio registros*, multisectional *tientos*, and *Pange lingua* settings, are preserved in a manuscript in the El Escorial archives. They display a blend of older compositional techniques, such as those used by Cabezón and other first generation *tiento* writers and new Baroque elements, creating a model for seventeenth-century *tiento* composers; consequently, they act as a bridge between these earlier composers and later *tiento* writers such as his student Ximénez and the illustrious Correa de Arauxo.<sup>49</sup>

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<sup>45</sup> Apel, "Spanish Organ Music," 177.

<sup>46</sup> Norma Jean Stevlingson, "The Stylistic Development of the Tiento on the Iberian Peninsula from Cabezón to Cabanilles" (D.M.A. Lecture Recital, North Texas State University, 1974), 6.

<sup>47</sup> Barton Hudson, "Aguilera de Heredia, Sebastián," *Grove Music Online* (accessed 4 December 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/00323>>.

<sup>48</sup> Robert Parkins, "Spain and Portugal," in *Keyboard Music Before 1700*, ed. Alexander Silbiger (New York: Schirmer Books, 1995, 312-359), 313.

<sup>49</sup> Ibid.

According to Lothar Siemens-Hernández, Aguilera likely composed the majority of his pieces in the seventeenth century, after his arrival in Zaragoza in 1603, at which time he was already in his forties.<sup>50</sup> His musical education, however, was firmly rooted in the sixteenth century. Aguilera is especially notable in that he was the first Spanish composer to make significant use of the *medio registro* in his compositions. The fact that these early compositions for divided stops show a remarkable beauty and maturity only furthers his importance. It also foreshadowed the ingenuity that would be found in the Aragonese school of composers.<sup>51</sup>

In general, Aguilera's *tientos*—some of which are known by the title *obra*—have a similar formal structure. They are largely monothematic, with some containing secondary material (often unrelated to the primary theme) at some point after the opening section. In some *tientos* Aguilera presents the primary theme and then reintroduces this theme in inversion; in others, he presents the primary theme in augmentation. Aguilera frequently employ meter changes, usually from duple to triple.<sup>52</sup>

There is a sizeable corpus of music by Aguilera that is extant, including several pieces written for *medio registro*. This is most likely due to the fact that the organ at Huesca Cathedral—where Aguilera was employed before accepting the La Seo post in 1603—incorporated a divided, horizontal *dulzaina* during the organist's tenure there. Given the presumption that a majority of Aguilera's mature pieces were composed after his move to Zaragoza, it is probable that he had enough access to divided stops in Huesca to have

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<sup>50</sup> López-Calo, *Historia de la música española*, 144.

<sup>51</sup> *Ibid.*, 145.

<sup>52</sup> *Ibid.*

continued composing *medio registro* pieces after he relocated. It also seems plausible that Aguilera himself may have been responsible for the incorporation of the first divided stops in the La Seo organ, if indeed it did not already contain divided stops, an inclusion of which there is no record; this either took place in 1605, from which time there are records of an unelaborated repair, or in 1610, when Gaudioso de Lupe made several revisions is unknown. It makes sense that Aguilera would have wanted to include such stops in the organs at his disposal as soon as possible after his arrival in Zaragoza.<sup>53</sup>

In addition to five monothematic *tientos* and four pieces based on hymn tunes, four *medio registro* pieces by Aguilera survive to the present day.<sup>54</sup> All of them are of the *medio registro de bajo* type, with the solo passages located in the bass. Two of the four are *medio registro de dos bajos*, written for two bass solos. As is typical of the time, all four of the *tientos* begin with imitative counterpoint, though this is less strict than that found in *tientos* by Aguilera's predecessors. After the initial imitative section, mirroring those found in the Italian *ricercar*, the composer introduces solo figuration in the bass, juxtaposed with chordal material in the right hand accompaniment. For instance, in the *Bajo de 1° tono*, over half of the composition contains an interesting bass line utilizing seven brief motives, repeated several times at various pitch levels accompanied by different harmonies. As in Aguilera's other *tientos*, the primary theme makes only occasional appearances after its first entrance, which Apel states is "just in order to preserve a minimal degree of respect for the tradition."<sup>55</sup>

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<sup>53</sup> Hoag, *The Performance Practice of Iberian Keyboard Music*, 110.

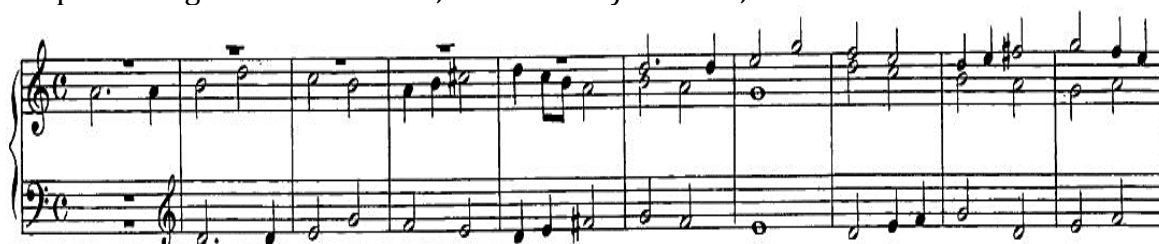
<sup>54</sup> Hudson, "Aguilera de Heredia, Sebastián."

<sup>55</sup> Apel, "Spanish Organ Music," 180.



In the *Tiento de bajo 1° tono* Aguilera de Heredia departs from the usual long note and short note subject combination and, instead, begins with a subject line consisting of a dotted half and quarter note, followed by half notes. The initial entrance is in the alto, followed by subsequent entrances in the tenor and soprano as seen in mm. 2 and 6, respectively (Example 4-4 below).

Example 4-4. Aguilera de Heredia, *Tiento de bajo 1° tono*, mm. 1-10.<sup>56</sup>



The entrance of the solo bass voice in m. 13 (Example 4-5) is followed by simple eighth-note figuration. These sections are primarily scalar and less virtuosic than those of composers that would follow Aguilera.

Example 4-5. Aguilera de Heredia, *Tiento de bajo 1° tono*, mm. 11-21.<sup>57</sup>



<sup>56</sup> Higinio Anglés, ed., *Antología de organistas españoles del siglo XVII*, vol. 4 (Barcelona: Diputación Provincial de Barcelona: Biblioteca Central, 1965-1968), 1.

<sup>57</sup> Ibid.

The second appearance of the initial subject in the solo bass is followed by another figurative section wherein the solo voice appears exactly as in the initial appearance, but transposed to the dominant (Example 4-6). This is followed by further figuration that incorporates sixteenth notes and preserves the general characteristics of the former ornamentation, but here is embellished.

Example 4-6. Aguilera de Heredia, *Tiento de bajo*. 1° tono, mm. 35-53.<sup>58</sup>



In m. 51 (Example 4-6 above), Aguilera de Heredia introduces new solo material, this time utilizing triplets in the solo bass. This new material, accompanied by block chords in three upper voices, alternates with reappearances of the primary figurative material. In addition, the triplets foreshadow a new section employing compound triple meter (Example 4-7).

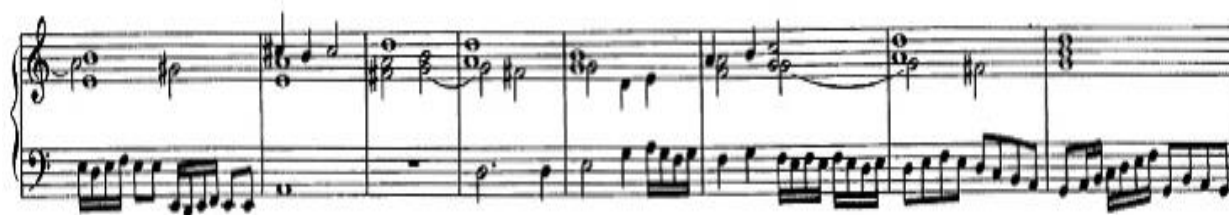
<sup>58</sup> Ibid., 2.

Example 4-7. Aguilera de Heredia, *Tiento de bajo 1° tono*, mm. 88-97.<sup>59</sup>



Throughout the remainder of the piece Aguilera de Heredia continues to juxtapose sections with varying rhythmic components against virtuosic solo lines that are slightly transformed from the original section. In the final solo section Aguilera returns to the initial subject line, using only the first half (dotted half note, quarter, half), followed by more embellishment of the solo line; he does this only once, and only in the bass voice, as if to attempt to tie the whole piece together with this one musical idea (Example 4-8).

Example 4-8. Aguilera de Heredia, *Tiento de bajo. 1° tono*, mm. 138-145.<sup>60</sup>



<sup>59</sup> Ibid., 4.

<sup>60</sup> Ibid., 6.

This *tiento de bajo* is an excellent example of Aguilera de Heredia's desire to exploit fully the use of the *registros partidos* at his disposal. Unlike the *tientos* of earlier composers, which adhere to earlier models characterized by alternating sections of chordal and virtuosic material, Aguilera's *tiento de bajo* focuses primarily on the solo sections.

In the *Tiento de dos bajos. 8° tono*, Aguilera de Heredia utilizes a more traditional subject line comprised of whole and half notes. It begins with a soprano entrance, followed by alto, tenor, and bass, as seen below (Example 4-9).

Example 4-9. Aguilera de Heredia, *Tiento de dos bajos. 8° tono*, mm. 1-10.<sup>61</sup>



Similar to the previous example, the *Tiento de bajo. 1° tono*, this piece uses scalar passages extensively—in this case in both the solo bass lines as well as the accompanimental material. Movement in the solo lines is primarily stepwise and sequences are common. Aguilera de Heredia also changes meter in this piece to increase the variety and add interest. One example of this can be seen in m. 45 (found in Example 4-10 below); here, Aguilera also introduces new thematic material to further delineate the section from its predecessor.

<sup>61</sup> Higinio Anglés, ed., *Antología de organistas españoles del siglo XVII*, vol. 2 (Barcelona: Diputación Provincial de Barcelona: Biblioteca Central, 1965-1968), 13. Available online via <https://botiga.bnc.cat/publicacions/organistesii.pdf>.

Example 4-10. Aguilera de Heredia, *Tiento de dos bajos*. 8° tono, mm. 43-58.<sup>62</sup>



Aguilera de Heredia returns to simple duple meter for the conclusion of the piece. While he employs snippets of thematic material from various parts of the composition for this final section, he never returns to the initial subject (as is found in the previously-mentioned composition).<sup>63</sup>

The founding member of the Aragonese school, Aguilera de Heredia became the primary influence for later composers, including Bruna, Perandreu, and Cabanilles. His works for *medio registro* show great diversity and a mature style that helped secured his place as one of the most important Spanish musicians of the early Baroque.

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<sup>62</sup> Ibid., 14.

<sup>63</sup> Some of Aguilera's *medio registro* works have been published in modern editions, the most thorough (though not especially accessible) of which are those edited by L. Siemens Hernandez and Dom Claude Gay. See: Sebastián Aguilera de Heredia, *Obras para Organo*, ed. L. Siemens Hernandez (Editorial Alpuerto, 1977), and *L'Oeuvre d'Orgue*, ed. Dom Claude Gay (La Flèche, France: Editions GRAS, vol. 1, AL 27502 [1979], vol. 2, AL 27503 [1980]). The La Flèche edition is now available from Leduc publishers.

## Francisco Correa de Arauxo

Like many other composers, details regarding the life and works of Francisco Correa de Arauxo (1584-1654) have been, until quite recently, rather vague. However, the performance of Correa's music by international figures such as Guy Bovet has exposed Spanish Baroque organ music to a wider audience and made Correa's work widely known and played within the Iberian repertoire. In addition, in the last few decades new information has been uncovered about the life and works of Correa. This has led to the revision or publication of biographical information (though an exhaustive biography of the composer is still largely incomplete) and an edition of Correa's only publication: his *Facultad orgánica* of 1626.<sup>64</sup>

Correa was born in Seville in 1584, but there is essentially no biographical information about his early years, including any information regarding his musical training. Like many composers of his day, he was largely self-taught in theory and studied the works of composers, including the likes of Francisco de Peraza and Diego del Castillo. Much of the information that we do have regarding his life comes from church and litigation records.<sup>65</sup>

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<sup>64</sup> Three specific editions of Correa's *Facultad orgánica* are suggested to the modern-day player. The first, *Facultad orgánica* (Alcalá, 1626), transcribed by Santiago Kastner (Madrid: Union Musical Española, 1980), comprised of two volumes, has long been the authoritative edition of this collection. Originally found in volumes VI and XII of the *Monumentos de la música española*, Kastner reedited the music before publishing the present edition, correcting several errors that allow the performer a more accurate execution of the *tientos*. One limitation of this edition is that the 26-folio preface found in MME is not included in the 1980 publication. The second notable edition is the *Libro de tientos y discursos de música practica, y theórica de órgano, intitulado Facultad orgánica*, ed. Miguel Bernal Ripoli (Madrid: Sociedad Española de Musicología, 1999-2005). This edition, in three volumes, is the most recent publication of Correa's treatise and music. It is more readily available and accessible to the modern reader and includes in-depth analysis of Correa's theoretical writings found in the preface. For the most recent edition of Correa's works see: Correa de Arauxo, *Facultad orgánica* (Alcalá, 1626), 4 vols., ed. Guy Bovet (Bologna: Ut Orpheus Ed., 2007).

<sup>65</sup> Jon Burnett Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica': A Translation and Study of its Theoretical and Pedagogical Aspects" (D.M.A. diss. University of Oregon, 1985), 16-17.

Correa received his first official appointment as organist of the collegiate church of San Salvador in Seville in 1599, though a lawsuit from his rival for the post, Juan Picafort, delayed his start until the end of September 1605.<sup>66</sup> About this time he was also ordained as a Catholic priest; the exact date is unknown. Correa held this post until the beginning of 1636, despite his many attempts to secure other positions. For instance, in 1613, Correa applied for two cathedral positions, including posts in Seville (where he was already a resident) and Málaga. In 1618, he applied, also unsuccessfully, for a post at the cathedral in Toledo.<sup>67</sup>

Sometime during the early 1630s, Correa became a member of the Confraternidad de San Salvador and chaplain at the Convento Real de la Encarnación in Madrid. In the same year, unhappy with his current pay (and that of his fellow church musicians), he refused to play for extra services and is said to have interrupted a Vespers service from the organ gallery. As a result of this outburst, the locks to the organ were changed and he eventually became involved in a number of lawsuits with the chapter of the collegiate church of San Salvador and even spent time in prison.<sup>68</sup>

Despite these troubles, he was nominated for the post of organist of Jaén Cathedral in 1636; he would hold this position for only about four years when, in May 1640, he was selected for the post of prebendary of Segovia Cathedral. Sometime during his tenure there, Correa received an invitation from the chapter of Seville Cathedral, encouraging the

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<sup>66</sup> Ibid.

<sup>67</sup> Barton Hudson and Louis Jambou, "Correa de Arauxo, Francisco," *Grove Music Online* (accessed 4 December 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/06556>>.

<sup>68</sup> Parkins, "Spain and Portugal," 322.

composer to return to his hometown and assume the position for which he had applied some twenty years before. Surprisingly, in the last 14 years of his life, plagued by financial hardship, he turned down the position in Seville, and continued to serve as prebendary at Segovia Cathedral and eventually died in abject poverty.

Though at least three collections by Correa are mentioned in various sources, Correa's surviving works can be found in a single publication dating from 1626, entitled *Libro de tientos y discursos de música practica, y theorica de organo intitulado Facultad orgánica* (A book of *tientos* and *discursos*, practical and theoretical organ music, entitled *Facultad orgánica*).<sup>69</sup> According to the title page it is a collection,

with which, together with moderate study and perseverance, any average player having good natural ability can emerge improved, knowing how to play polyphony skillfully. Composed by Francisco Correa de Arauxo: Cleric Presbyter, Organist of the Collegiate Church of San Salvador of the City of Seville, Rector of the Brotherhood of its Priests, and Master on the Faculty, etc. Licensed. Printed in Alcalá by Antonio Arnao.<sup>70</sup>

This publication is a practical and theoretical treatise containing all of Correa's extant works.<sup>71</sup> Of a total of 69 works, 62 are *tientos*; moreover, the title makes clear that its intended use is as a collection of organ pieces—not works for keyboard instruments in general. The pieces are divided into five different groups, ordered by degrees of difficulty. The collection functions not only as a book of compositions (the ordering of the works assumedly making it a didactic publication), but also as a pedagogical treatise on performance practice and music theory, making it similar in nature to the many *vihuela*

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<sup>69</sup> There are currently eight copies of the original print that are extant in the world today and each copy contains slight dissimilarities—including in some copies, the inclusion of works by other composers or intabulations of Correa works not found in all volumes.

<sup>70</sup> Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica,'" 123.

<sup>71</sup> Parkins, "Spain and Portugal," 322.



collections and compositional treatises of the sixteenth century.<sup>72</sup> The beginning includes Correa's writings on theoretical issues such as ornamentation, registration, dissonance, and the use of different modes and key signatures. Correa prefaces each piece in the collection with suggestions for performance, registration, tempo, and mode. The inclusive nature of the *Facultad orgánica* makes it one of the most important works of its kind to come out of Spain in the seventeenth century and secures Correa's role as the major compositional bridge between Antonio de Cabezón (1510-1566) and Juan Bautista José Cabanilles (1644-1712). Correa influenced the writing of several later Spanish composers, including Jiménez, Perandreu, Bruna, and Cabanilles. In many cases, techniques established by Correa were further refined by these later composers.<sup>73</sup>

Of the 62 *tientos* found in the *Facultad orgánica*, 36 are for *medio registro*. They typify the *tiento de medio registro* of the time, as well as exhibiting Correa's skill as a composer. Among Spanish *tiento* composers, Correa utilizes the most varied arrangements of the solo voice in his *medio registro* pieces. The possible solo arrangements used by Correa are as follows: *medio registro de tiple* (one solo/soprano voice in the treble half of the keyboard; 18 works), *medio registro de dos triples* (two solo voices in the treble half of the keyboard; 2 works), *medio registro de baxón* (one solo voice in the bass half of the

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<sup>72</sup> In many respects, this treatise is similar to the pedagogical and theoretical manuals authored by Diego Ortiz (*Tratado de glosas*, 1553), Fray Juan Bermudo (*Declaración de instrumentos musicales*, 1549 and 1555), and Santa María (*Arte de tañer fantasía*, 1565); each of these earlier treatises serves a didactic function and stresses the importance of uniting theory and practical application. Correa emphasizes this same concept and, indeed, the collection contains material that is either an almost verbatim replication or a strikingly similar paraphrase of earlier material. It should be noted that the borrowing and copying of other author's works was a common practice at this time.

<sup>73</sup> Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica,'" 2.

keyboard; 13 works), and *medio registro de dos baxones* (two solo voices in the bass half of the keyboard; 3 works).<sup>74</sup>

The 36 *medio registro* pieces contained in the *Facultad orgánica* form the most substantial genre within the collection, no doubt an example of how fashionable the genre was in Castile during Correa's time. Correa states that the *registro partido* was "a famous invention, and very familiar in the Kingdoms of Castile, although not known in others."<sup>75</sup>

Correa is known for the diversity and ingenuity of his *medio registro* compositions.<sup>76</sup> Indeed, in the composer's *Advertencias*, he states that users of the *Facultad orgánica* will find many "*curiosidades y cosas nuevas* (curiosities and new things) which ought to be appreciated by those who know a great deal about music and many notes and indications which comment upon the compositions of this book. These are new things which are not known to any musician."<sup>77</sup> Among these, Correa lists the *proporciones*, *medio registros*, *falsas y licencias*, and *una nueva falsade punto intenso contra remisso* (the use of a diatonic and chromatic note of the same name at the same time).<sup>78</sup>

In Correa's table of contents he lists the compositions in five grades of increasing difficulty. Correa states in the opening of Section IV (Table of the Tientos):

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<sup>74</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 83.

<sup>75</sup> Parkins, "Spain and Portugal," 323.

<sup>76</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 85. Correa appears to be the first organist to write pieces in a battle style, a form of the *tiento* often entitled *batalla*.

<sup>77</sup> Ibid., 91. As many of these compositional techniques were certainly not new to other musicians, Correa was either unaware of this (which is unlikely) or was simply an excellent marketer of his own publication and compositions. Translation by Merino.

<sup>78</sup> Apel, "Spanish Organ Music," 179.

Table of the polyphonic *tientos* and *discursos* contained in this book, divided into six divisions, which I call degrees. They begin with the first degree which is the easiest and requires the least amount of study. The order of these *discursos* becomes consecutively more difficult through the fifth and last degree, which denotes the greatest difficulty and perfection of the *discursos* that appear in this category. The sixth degree does not refer to difficulty; rather, it separates the *versos* from the *tientos*.

However, the actual ordering of the compositions does not adhere to this table and, instead, Correa's collection exhibits the many possible structures of the genre. There are: fairly conservative imitative, monothematic works; monothematic compositions wherein the initial theme is used unpredictably throughout the figurative sections; polythematic pieces reminiscent of Cabezón and older generations of *tiento* composers; and polythematic pieces using a preponderance of figurative sections. In contrast to contemporary Aragonese composers, Correa does not employ monothematic multisectional *tientos* or the *tiento de falsas* that plays such an important part in the output of Heredia and later writers.<sup>79</sup> Correa's preambles to each piece include its title and other information, including the piece's genus and its defining attributes, the number of beats contained in each measure, and other important aspects of the composition, such as registration, ornaments, tempo, etc.

Correa's works are, in general, short and largely monothematic. The *tientos* utilize virtuosic figuration and ornamentation as well as unusual rhythmic shifts, harmonies and the striking dissonances that Correa unabashedly defends in his theoretical writings. The

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<sup>79</sup> Parkins, "Spain and Portugal," 323.

compositions frequently combine the figurative style of the Italian *toccata* with the polyphonic character of the *ricercar*.<sup>80</sup>

The initial subjects of many Correa *tientos* utilize the *stile antico*, juxtaposed with more active counterpoint in the other voices (as seen in *tiento LIV* and *LIII*, seen in Example 4-11 below.). In other compositions, as in *tiento XXV*, the initial subject includes both long and short note values, providing more interest to the opening contrapuntal section.<sup>81</sup> Correa usually presents the initial subject twice as a solo line, the second appearance being transposed to the subdominant or dominant but otherwise relatively unchanged. Throughout the remainder of the composition, Correa's thematic material is more difficult to follow and new material that is sometimes related to the initial theme is often added to contribute to the variety of the piece.

The secondary subjects in Correa's *tientos* are similar to the initial subjects in that they can be comprised of long note values, short note values, or a combination of the two. The subjects, both primary and secondary, are overwhelmingly diatonic, with the exception of *Discurso LV*, which is chromatic, containing an initial subject line of *G, G-sharp, A, G, F, E, F*. Correa employs countersubjects during the initial statement of the theme, as well as in later sections in many of his *tientos*. The simultaneous use of two themes is explored by Correa in only one *tiento*—*XXVIII*—wherein the two long-note subjects are found juxtaposed in mm. 1-62.<sup>82</sup>

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<sup>80</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 181.

<sup>81</sup> *Ibid.*, 86.

<sup>82</sup> *Ibid.*, 87.

Example 4-11. Correa de Arauxo, *Tiento LIII*, *Tiento de medio registro de dos tiples de segundo tono*, mm. 1-10.<sup>83</sup>

**LIII**

TIENTO de medio registro  
de dos tiples  
de SEGUNDO TONO <sup>1)</sup>

Correa's transformation of subjects is fairly common within the period. Diminution and inversion can be found in many of his compositions, whereas augmentation and augmented inversions do not play a role in any of his pieces. The composer frequently unifies subjects by using similar musical material. Secondary subjects are often derived from the primary subject, sometimes through the application of diminution and inversion. Stretto is also applied in select pieces.<sup>84</sup>

The episodes between contrapuntal sections are generally lengthy and highly virtuosic, longer than in composers such as Aguilera de Heredia. For example, many of the episodes in *Tiento LVI*, entitled *Discurso de medio registro de dos baxones de quarto tono*, may be as long as thirteen or fourteen measures; the first 44 measures of which can be found in Example 4-12 below. When compared to the usually brief contrapuntal segments

<sup>83</sup> Santiago Kastner, ed., *Francisco Correa de Arauxo. Libro de tientos y discursos de música y theórica de órgano intitulado Facultad orgánica* (Alcalá, 1626), (Barcelona: Instituto Español de Musicología, 1948), 100.

<sup>84</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 90.

this constitutes a much more significant portion of the overall composition. Correa utilizes several types of writing in these episodes, such as minimal amounts of imitative counterpoint or loose imitation foreshadowing the proceeding solo line. One of the most characteristic aspects of this episodic material is the melodic quality of the solo lines. After introducing the subject, the solo line departs in a free, melismatic section that often does not include the sequences and intuitive figuration found in the writing of Aragonese composers.<sup>85</sup>

The quality and importance of Correa's *tientos* lie more in their novelty than in their complexity. While Cabezón was known for the latter, Correa's pieces rely on the florid virtuosity of the figuration and the introduction of myriad themes and motives. This can be seen in *Tiento X*, which contains twelve identifiable themes, with only two (the initial theme and its countersubject) playing a substantial role in the structuring of the piece.

Many of Correa's *medio registro* compositions, including *Tiento XXXVI*, *XLI*, *XLIV*, and *XLV* (all *medio registro de tiple* pieces), *Tiento XXV* (a *medio registro de baxón*), and *Tiento XV* and *XX* (*lleno* pieces), are monothematic. The structure of these pieces includes alternation between the initial theme and virtuosic episodes. Such pieces show one of the quintessential differences between the output of Spanish composers and those of their Italian counterparts. Merino compares Correa's *tientos* with the *toccatas* and *ricercari* of composers like Frescobaldi, and draws the following conclusion:

Compared with these pieces Correa's *tientos* appear to be a hybrid form. They combine the figurative aspects of the Italian *toccata* with the polyphonic aspects of the *ricercar*. This hybridity is also characteristic of the

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<sup>85</sup> Parkins, "Spain and Portugal," 323.

*tientos* of another peninsular composer of the period—Rodrigues Coelho. In this respect they can be compared with Sweelinck's fantasias.<sup>86</sup>

All of Correa's *tientos* containing two solo lines—the *medio registro de dos tiples* (*Tientos LIII* and *LIV*) and the *medio registro de dos baxones* (*Tientos LV*, *LVI*, and *LVII*) are comprised of five voices (see Example 4-12 below).

According to Correa the use of five voices represents an effort to achieve balance in registration, and volume. Correa addresses the makeup of works for *dos tiples* or *dos baxones* in Point Fourteen of his theoretical preface. He states:

Of the fourteenth point, I would like to mention that some of the organ masters have composed some *tientos* for double divided stops, that is, for two trebles or basses, for nuns. In order to facilitate their performance, they have made them for four voices. But in truth one should really see the gross inconveniences and imperfections that these *tientos* have. First (in works for two trebles), the bass voices do not keep their legitimate ambitus, but rather wander around taking the place of the missing [i.e., fifth] voice, as if remedying and covering the voids which this deficiency produces.<sup>87</sup>

Correa goes on to explain the importance of five-part writing in *medios registros* containing two treble or bass solos. He states that when such pieces are written with only four voices, the treble or bass lines cannot include rests because the harmonies would be incomplete, due to the fact that there would then be only two voices still sounding. He states that "these are very notable faults, ones which should be avoided" and for these reasons he advocates that *dos tiples* or *dos baxones* pieces should always be composed using five voices.<sup>88</sup> Correa adheres to his own advice fairly strictly throughout the volume,

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<sup>86</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 96-97.

<sup>87</sup> Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica,'" 189-190.

<sup>88</sup> *Ibid.*, 190-191.

though there are exceptions; an example of his five-part writing can be seen in the Example 4-13 below.

Example 4-12. Correa de Arauxo, *Discurso LVI*, *Discurso de medio registro de dos baxones de quarto tono*, mm. 1-44.<sup>89</sup>

**LVI**  
DISCURSO de medio registro  
de dos baxones.  
de QUARTO TONO 1)

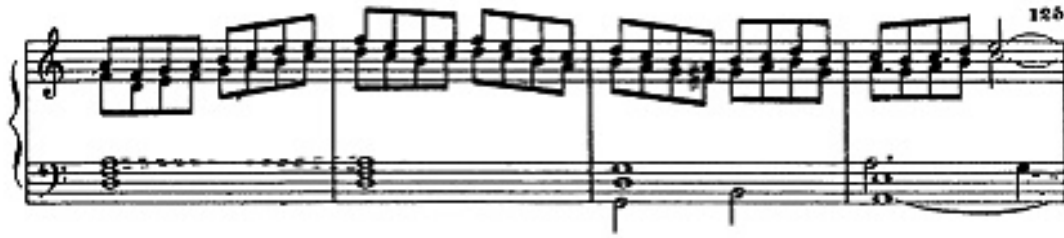
*f. 146 v*

<sup>89</sup> Kastner, *Facultad orgánica* (Alcalá, 1626), 120-121.





Example 4-13. Correa de Arauxo, *Tiento LIII, tiento de medio registro de dos tiples de segundo tono*, mm. 122-125.<sup>90</sup>



Correa's use of rhythmic variety is one of the identifying characteristics of his pieces. Correa appears to be very proud of these rhythmic innovations and discusses them in the *advertencias* of the collection. He uses small, irregular note values and unequal divisions of ternary rhythms not common to other composers of the era that Merino likens to virtuosic passages in piano works of the Romantic period.<sup>91</sup> Examples can be seen in *Tientos LVIII-LX*, which include thirty-second notes, and *Tientos LXII* and *LXIII*, which are in triple meter.<sup>92</sup>

Unlike many of the other compositional concepts found within the *Facultad orgánica* that are covered extensively, Correa provides little insight into his formal construction. In Correa's theoretical preface he includes a number of "points" that clarify and elucidate several techniques or devices that he uses within his compositions. The eleventh point, entitled *Sesquialtera y ayrezillo* explains Correa's use of varying numbers of beats within one measure. He states:

The number of notes which we call sesquialtera proportion (that is with six or twelve notes to the measure or with nine and eighteen notes to the measure) can be played in two different manners. The first manner, and the easiest, is to play them equally, and plain; that is, without detaining oneself

<sup>90</sup> Kastner, *Francisco Correa de Arauxo*, 105.

<sup>91</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 99.

<sup>92</sup> Parkins, "Spain and Portugal," 323.

more on one than on the other. This manner has the duration of major proportion, in which there are three whole notes, and six half notes, and twelve quarter notes to the measure equally, plain and without *ayrezillo* [i.e., either a type of rhythmic alteration, or a type of articulation (see pp. 79-89)]. The second manner is to play the sesquialtera somewhat unequally, and with that *ayrezillo* and grace of the minor proportion, and this (even though difficult) is the manner most used by organists. It consists of detaining oneself more on the first note, and less on the second and the third, and then detaining oneself on the fourth, and less on the fifth and sixth. And it is (almost) like making the first a half note, and the second and third quarter notes, or, in half values, a quarter note and two eighth notes, and continuing this way through all the notes of each measure.<sup>93</sup>

In Point Thirteen of the theoretical preface Correa goes on to discuss works with twenty-four and thirty-two notes per measure, a technique that he states is newly-invented by him. This division of notes usually applies to sections in triple meter, or what the author refers to as *compás mayor ternario*, in which three whole notes can be divided into twenty-four eighth notes or forty-eight sixteenth notes; as noted before, this technique was not confined to use in triple meter. This can be seen in *Tiento LX*, a *medio registro de baxón de treinta y dos números al compás*, the title designating that there are thirty-two notes to the measure (Example 4-14 below). Correa states that in pieces with this particular rhythmic breakdown, the player must have two things at their disposal: a light and dexterous keyboard technique and a responsive organ, particularly, fast-speaking reeds.<sup>94</sup>

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<sup>93</sup> Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica,'" 181.

<sup>94</sup> Ibid., 188-189.

Example 4-14. Correa de Arauxo, *Tiento LX*, *medio registro de baxón de treinta y dos números al compás*, m. 19.<sup>95</sup>



### Ornamentation

Since Spanish organs and, therefore, Spanish organ composition represented something unique to the Iberian Peninsula, Spanish ornamentation, both written and extempore (improvised embellishment was expected, though many ornaments are actually written out within the music), is distinctive in a number of ways. To this end, it was not uncommon for composers to include within their compositions and treatises extensive information about how they wished their ornaments to be performed. Bermudo, Venegas, Cabezón, and Santa María are just a sampling of the many important composers who have left us information regarding the performance of musical embellishments. Similar to the many ornament tables surviving from other schools of organ and keyboard composition (perhaps most notably the French school), each Spanish composer also had slightly different views on how any given ornament should be performed. It is perhaps unsurprising, then, that Correa would devote a large section of *Facultad orgánica* to explaining his own system of ornamentation.

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<sup>95</sup> Kastner, *Francisco Correa de Arauxo*, 157.

Though many different kinds of ornaments can be found within Correa's works, his preface uses only two terms to describe his ornamentation: the *redoble* and the *quiebro*.<sup>96</sup> Subsequently, these two "umbrella" terms have two subcategories: the *sencillo* (simple) and the *reiterado* (reiterated). However, as with many of the concepts in Correa's preface, often the theoretical applications of Correa's ornamentation differ from their practical application. While in-depth explanations of these ornaments and their usage is outside the scope of this document, it will be helpful to provide a brief overview of the two primary ornaments, and their specific types, used by Correa in his organ compositions.<sup>97</sup>

The *redoble* is the foremost ornament employed in Spanish organ literature. According to Correa's definition, it is a trill made up of three notes. The *redoble* begins with the lower neighbor, moves to the main note, and proceeds to the upper neighbor. The trill continues between the main notes and the upper neighbor. The ornament concludes by moving from the main note of the trill to the lower neighbor, back to the main note, and then finally resolving to the upper neighbor; this kind of *redoble* is defined by Correa as a *redoble sencillo* (Example 4-15).<sup>98</sup>

Example 4-15. Correa's *Redoble sencillo*.



<sup>96</sup> Johnson, *Historical Organ Techniques: Spain*, 53.

<sup>97</sup> More in-depth information on this subject can be found in Johnson, and Dionisio Preciado, *Los quiebros y redobles en Francisco Córrea de Araujo, 1575/77-1654: estudio sobre los adornos de la musica de tecla española de principios del s. XVII* (Madrid: Editorial Alpuerto, 1973).

<sup>98</sup> Johnson, *Historical Organ Techniques: Spain*, 53-55.

Correa also gives a simple definition of the *redoble reiterado*. The *redoble* changes from *sencillo* to *reiterado* with the addition of a single note. The ornament begins with the note that is two notes directly below the main note of the trill and is executed with the same trill and resolution as that of the *redoble sencillo* (Example 4-16 below). *Redobles* of either type may be used on any leading tones which do not already have an ornament written out in the score; consequently, a *redoble* is never used to embellish a note between two whole steps.<sup>99</sup>

Example 4-16. Correa's *Redoble reiterado*.



The *redoble* is often designated by an “R” in a score and sounds most often on whole or half notes, depending on the slowest note values used in a given composition.<sup>100</sup> Correa's *redoble* generally consists of a whole step and a half step. In addition to the score marking, the composer may fully write out the ornaments. In such cases, Holland suggests that the performer elaborate on the written ornamentation, including more notes than are written in the score. For this suggestion he uses as his basis Correa's own directive “that in *quiebros* and *redobles* there are no determined number of figures.” In addition, Correa's ornamental recommendations should be used as a starting point for the creative execution of his music;

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<sup>99</sup> Ibid, 53-55.

<sup>100</sup> Preciado, “En torno al organista Francisco de Peraza I (1564-1598),” 30. According to Preciado, Correa appears to be one of the first Spanish organists to indicate ornaments with the use of a special sign in the music.

on folio 16 he states that “some masters have invented other *redobles*; these I submit to you for your good education.” Thus, modern-day performers should feel free to experiment and find ornamentations that work within a given piece.<sup>101</sup>

It should be noted that Correa’s two types of *redobles*—the *redoble sencillo* and the *redoble reiterado*—are distinctive to him. Though other composers employ the use of comparable ornaments, such as Luis Venegas de Henestrosa, whose *Libro de cifra nueva* of 1557 utilizes a similar ornament, no other writer of the period provides ornaments that are exactly the same.<sup>102</sup> However, similarities exist between this ornament and any number of trills defined by other authors. For instance, Santa María provides a definition of an ornament that closely resembles Correa’s *redobles*, with the single caveat that Santa María’s begins with a grace note before the beat on which the ornament begins.<sup>103</sup> In addition, Correa’s *redobles* often more closely resemble the ornament defined by others as a *quiebros*.

The *quiebro sencillo* (simple *quiebro*) often resembles what modern-day musicians call a mordent; in other words, a *quiebro* is a figure that consists of three notes that start on the main note, move to the lower neighbor, and return to the main note.<sup>104</sup> The *quiebro sencillo* may be executed between notes a whole step or a half step apart, unlike the *redoble* (Example 4-17). The execution of the *quiebro* solely relies on the tonality of the composition or of a given section.

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<sup>101</sup> Holland, “Francisco Correa de Arauxo’s ‘Facultad Orgánica,’” 99.

<sup>102</sup> Ibid., 94.

<sup>103</sup> Johnson, *Historical Organ Techniques: Spain*, 40.

<sup>104</sup> Ibid, 53-55.

Example 4-17. Correa's *Quiebro sencillo* (Whole Step and Half Step).



Correa does not include any written-out examples of the *quiebro* in *Facultad orgánica*, but he does write of a number of circumstances in which the ornament may be used.<sup>105</sup> The *quiebro sencillo* may be employed on either half notes or whole notes (although it is utilized most often on half notes), particularly when the musical material found in the other voices is not especially virtuosic. The *quiebro sencillo* may also be used on quarter notes in compositions having slow tempos or on eighth notes in pieces of especially slower tempos; the ornament may be employed as frequently on every other quarter note or eighth note, again, only if the other voices do not contain ornaments or virtuosic figures.

Like Correa's *redoble*, his definition of the *quiebro sencillo* is also unique to him. Again, similarities exist between Correa's ornaments and those of Santa María; however, Santa María uses the ornament only on quarter notes, and the ornament moves from the main note to the upper neighbor in lieu of proceeding to the lower neighbor like Correa's; in essence, the two ornaments are inversions of each other. Correa's *quiebro reiterado*, on the other hand, is an ornament that begins on the upper neighbor of the main note, then moves to the main note, down to the lower neighbor, and finally, returns to the main

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<sup>105</sup> Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica,'" 90.



note.<sup>106</sup> The ornament, unlike the *redoble*, does not necessarily have to contain a half step and may be comprised of any notes in a hexachord.

Example 4-18. Correa's *Quiebro reiterado*.



Correa's definitions of various ornaments have certain ramifications for modern-day performers of his music. One must decide if the ornaments used in the performance of Correa's compositions should be exclusively those defined within *Facultad orgánica*. A variety of different keyboard treatises from the Spanish Baroque era give any number of definitions for identically-named ornaments, many of which are equally effective when used in the performance of Correa works. In order to demonstrate some of the embellishment possibilities, Calvert Johnson, one of the leading American scholars of Spanish Baroque music, has published music with examples of possible ornaments, which often represent a combination from a variety of sources by several different composers. In practical application, the *quiebro sencillo* can either be used as a typical mordent in an ascending passage or an inverted mordent in a descending passage, especially on the weak beats or weak parts of beats of scalar passages. Johnson refers to these ornaments as the "Mordent Form" and "Inverted Mordent Form" of the *quiebro*. Such an example can be seen in the *Tiento XXIX, Quinto tiento de medio registro de tiple. 7° tono* in Kastner's edition of *Facultad orgánica* (Example 4-19). Kastner employs the use of an inverted *quiebro* in m. 41.

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<sup>106</sup> Ibid, 91. Correa also refers to this ornament as a *quiebro doblado*.

When juxtaposed with Correa's original writing (Example 4-20), one can see that the opportunities for ornamentation are almost limitless.

Example 4-19. Kastner's Realization of the "Inverted Mordent" *Quiebro* in *Tiento XXIX*, *Quinto tiento de medio registro de tiple*. 7° tono, mm. 41-42.<sup>107</sup>



Example 4-20. Correa's Realization of the *Quiebro* in *Tiento XXIX*, *Quinto tiento de medio registro de tiple*. 7° tono, mm. 41-42.<sup>108</sup>



Antonio Brocarte

Despite the fact that his name is seldom heard today, Antonio Brocarte (1629-1696) was one of the most illustrious Spanish organists and harpists of the second half of the

<sup>107</sup> Kastner, *Francisco Correa de Arauxo*, 168.

<sup>108</sup> Francisco Correa de Arauxo, *Libro de tientos y discursos de música practica, y theorica de organo intitulado Facultad orgánica* (Alcalá de Henares: Antonio Arnao, 1626), 76. Available online via [http://imslp.org/wiki/Facultad\\_organica\\_\(Corr%C3%AAa\\_de\\_Araujo,\\_Francisco\)](http://imslp.org/wiki/Facultad_organica_(Corr%C3%AAa_de_Araujo,_Francisco)).

seventeenth century. Born in Logroño to a musical family (his father, Cristóbal, was organist at the collegiate church there), he would go on to hold a number of substantial posts throughout his life. His career, however, was slow to take off and he competed unsuccessfully for positions at Burgos Cathedral in 1649 and Palencia in 1650. Though he failed to secure either post, the *maestro de capilla* at Palencia, Cristóbal de Isla, recognized genuine talent in the young musician and recommended that the *cabildo* find a job for Brocarte. This appears to have been unnecessary, as he unanimously won the competition for the principal organist post at the cathedral of Santo Domingo de la Calzada in 1651. In 1655 he accepted a post at Segovia Cathedral, winning the position over the illustrious Correa de Arauxo! In 1661, he moved to Madrid after accepting the post of organist at the Chapel Royal of the Encarnación, but returned to Segovia only a few months later to resume his tenure there. He accepted his final position, the respected post of organist of the Salamanca Cathedral, in 1676, and remained there until his death two decades later.<sup>109</sup>

The extant organ works of Brocarte have been published by Lothar Siemens. His four surviving *tientos*, *Obra de lleno de 1° tono*, *Obra de 5° tono*, *Registro alto de 2° tono*, and a *Registro de dos tiples de 7° tono por E*, are so varied that it is difficult to formulate a generalized summary of their structure and characteristics; in many respects they also differ greatly from other contemporary *tientos*. Siemens addresses this in the preface of the published organ works:

Can one place the work of Brocarte within the panorama of Spanish Baroque organ music? Even at the risk of erring due to the lack of an overall view of his complete output, at a risk of judging a musician by only a select few examples, we believe that these, however, reveal his work's content—his true artistic spirit and well-balanced style. Certainly the musician intended to

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<sup>109</sup> López-Calo, *Historia de la música española*, 151-152.

get rid of exaggerated dimensions and excessive rhetoric, though this was not always achieved with the desired conciseness; in any case he rid his music of the dense [contrapuntal] language that filled the compositions of his immediate predecessors.<sup>110</sup>

The *Registro alto de 2° tono*, a three-voice *tiento*, conveys a side of Brocarte that is simultaneously reserved and completely in tune with the styles of his time. The subject is comprised of long note values (whole and half notes) and the ends of sections of contrapuntal and figurative material are clearly defined by cadential material, resembling the writing of Brocarte's predecessors (Example 4-21 below).<sup>111</sup> Chromaticism, seen especially in the composer's liberal use of cross relations, adds both melodic and harmonic interest to the *stile antico* subject lines. The figuration is straightforward and primarily stepwise, lacking the virtuosic flourishes of composers like Correa de Arauxo. As a result, the appeal of this piece lies not in the ornamentation, but rather in Brocarte's careful treatment of the counterpoint and the use of non-diatonic tones, which, no doubt, would have been particularly striking on instruments utilizing meantone or other Baroque tuning systems.

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<sup>110</sup> Ibid., 152. Published music found in L. Siemens Hernández, ed., *Antonio Brocarte: cuatro tientos para órgano* (Madrid: Real Musical, 1980.).

<sup>111</sup> For a complete transcription of the piece see Barton Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music. Manuscript no. 1577, loc. B, 5, Municipal Library, Oporto, Portugal" (Ph.D. diss., Indiana University, 1961), 294.

Example 4-21. Antonio Brocarte, *Registro alto de 2° tono*, mm. 1-12.<sup>112</sup>



Juxtapose the aforementioned piece with Brocarte's *Registro de dos tiples de 7° tono por E* and one sees that it is indeed difficult to typify Brocarte's style based only on his extant works. The *medio registro* piece for two soprano solos begins with a similar *stile antico* subject similar (Example 4-22).

Example 4-22. Antonio Brocarte, *Registro de dos tiples de 7° tono por E*, mm. 1-8.<sup>113</sup>

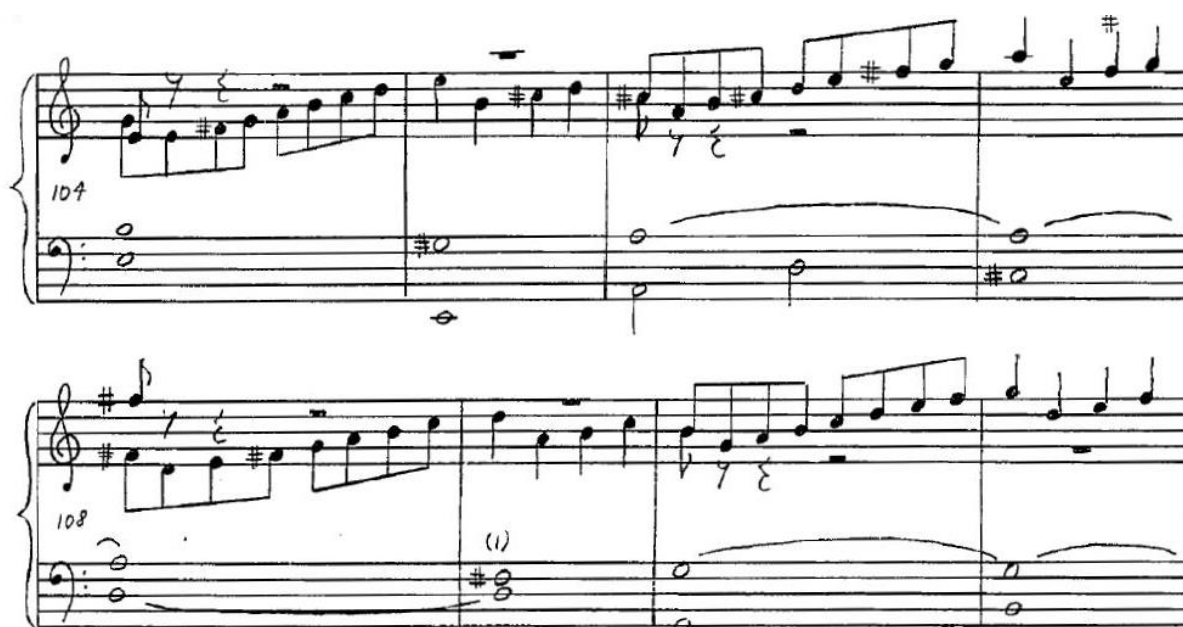


<sup>112</sup> Ibid., 294.

<sup>113</sup> Ibid., 492.

The contrast between the two pieces lay in the exceedingly conservative nature of the four-voiced *Registro de dos tipples*. The bulk of the composition is contrapuntal and, while solo lines are clearly present due to the placement of voices on the treble half of the keyboard, it is not until m. 104 that anything closely resembling typical solo figuration appears (Example 4-23). The composition is multisectional, in both duple and triple meter, and polythematic, containing numerous themes and motivic material that is derived from them. The piece is also large in scope, encompassing almost 280 measures!<sup>114</sup>

Example 4-23. Antonio Brocarte, *Registro de dos tipples de 7° tono por E*, mm. 104-111.<sup>115</sup>



Brocarte's organ works show that Brocarte, even with only four surviving pieces, exhibits the multiplicity of styles achievable in the *tiento* of this time, as well as continuing the trend of gradually pairing away the complex counterpoint of an earlier generation.

<sup>114</sup> For a complete transcription of the piece see Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 492.

<sup>115</sup> Ibid., 495.

Brocarte's pieces show a certain transparency that will be one of the defining features of the eighteenth century and Spanish genres such as the sonata and the concerto.

### Sebastián Durón

Sebastián Durón (*b* before 1660-1716) was the student of Andrés de Sola, who was then principal organist at La Seo in Zaragoza. It was at Sola's recommendation that Durón was hired as his assistant in 1679; however, Durón's stay at La Seo was brief, as only nine months later he accepted the position of second organist at Seville Cathedral, a post he retained until late 1685, when he relocated to Burgo de Osma in order to receive a new position as well as a prebend.<sup>116</sup> He remained there for only a year before he began a new position at Palencia Cathedral.<sup>117</sup>

In 1691, Durón accepted the most prestigious position of his career, as one of the organists at the royal chapel in Madrid. A decade later he became the *maestro de capilla* and director of the choir school. He was known as a talented sacred and secular composer, showing a remarkable aptitude for theatrical composition and production. Unfortunately, despite possessing great skill, Durón also held an allegiance to the Austrians in the War of the Spanish Succession and, on this account, was relieved of his influential post in 1706.<sup>118</sup>

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<sup>116</sup> Family connections no doubt aided Sebastián in securing this post; Alonso Xuarez, *maestro de capilla* at Seville at the time of Sebastián's application, knew the family and was the teacher of Sebastián's older brother, Diego.

<sup>117</sup> Louise K. Stein, *et al.*, "Durón, Sebastián," *Grove Music Online* (accessed 9 November 2012) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/08401>.

<sup>118</sup> The War of the Spanish Succession (1701-14) began as a result of disputes over who would rightfully assume the throne after the death of Charles II. Several treaties—each electing a different successor—were enacted in an attempt to circumvent later conflicts, but Charles II himself bequeathed the title to Philip, the

Adding insult to injury, the composer was eventually forced to abscond to France after he endeavored to steal a number of important musical scores from the royal chapel's library.<sup>119</sup>

Despite the dishonor that would blemish his reputation during his lifetime, the composer is today known for his large output of music, much of which is quite innovative and forward thinking, utilizing new instrumentations, textures, and Classical elements. Many of his compositions, most notably his *comedias* and *zarzuelas* (and, to some extent, his cantatas), present a certain flair, revealing his penchant for the theatrical. Most importantly, his compositions often exude the synchronicity of foreign and native compositional trends, for example, often incorporating foreign text or musical genres within his thoroughly Spanish stage productions, that has played such an essential role in the development of Spanish music.<sup>120</sup>

Durón's *Gaitilla de mano izquierda*<sup>121</sup> is an example of the composer's contribution to the *medio registro* repertoire. Though it retains many of the characteristics of divided

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Duke of Anjou (grandson of Louis XIV) of France. Upon Charles II's death in November of 1700, Philip was proclaimed king of Spain, as Philip V. He promptly invaded the Spanish Netherlands, resulting in pushback by an alliance formed by England, the Dutch Republic, and Holy Roman Emperor, Leopold I (later to be joined by Portugal, Prussia, and select German states). Frequent battles over the Spanish inheritance granted to Philip V continued until 1711 when Archduke Charles became heir to the Austrian Habsburg dynasty. The English and Dutch were now faced with the resurrection of the old Hapsburg Empire and no longer had a motivation to remove Philip V from the throne. Peace talks began in 1712 and a series of treaties, some of which would help to divide Spain's possessions, were signed the following year. For further information on the War of the Spanish Succession see William D. Phillips Jr. and Carla Rahn Phillips, *A Concise History of Spain* (Cambridge: Cambridge University Press, 2010).

<sup>119</sup> Stein, "Durón, Sebastián."

<sup>120</sup> Ibid.

<sup>121</sup> This title implies the use of a *gaitilla* or *gaita* stop, a short-length *regal* producing a thin and nasal tone that was meant to imitate a bagpipe or hurdy-gurdy. Such stops were most often found at the 2' level in the bass half of the keyboard.



keyboard pieces by earlier composers, it also shows the gradual change in stylistic tendencies from the early seventeenth century to the opening of the eighteenth. As seen in Example 4-24 below, Durón foregoes the usual long-note subject for a dance-like subject consisting of eighth and sixteenth notes. The subject's first entrance sounds in the alto, quickly joined by a tonal entrance in the tenor and soprano, before the solo bass line enters in m. 5.

Example 4-24. Sebastián Durón, *Gaitilla de mano izquierda*, mm. 1-6.<sup>122</sup>



The entrance of the bass solo quickly leads to figuration beginning in the next measure. Durón's solo writing also conveys a vibrant, dance-like quality; the lines utilize octave jumps, sequences and scalar material. Even a superficial glance at the score shows dynamic innovation (influenced, in part, by Italian instrumental in sonatas and concertos). Often the solo material goes through numerous harmonic progressions, frequently employing sequential material going around the circle of fifths. Durón's pieces show a shift away from typical, idiomatic Baroque organ writing, foreshadowing a gradual move to more keyboard-oriented writing. An example of this can be found in the octave jumps in the bass line in Example 4-25 below.

<sup>122</sup> Anglés, *Antología de organistas españoles del siglo XVII*, vol. 2, 90. Available online via <https://botiga.bnc.cat/publicacions/organistesii.pdf>.

Example 4-25. Sebastián Durón, *Gaitilla de mano izquierda*, mm. 78-94.<sup>123</sup>



Durón also uses meter changes; the second section of the piece is in triple meter (Example 4-26). The thematic material of this section retains the syncopated, dance-like quality of the first and the solo line continues to include scalar material. Unlike most other *tientos de medio registro*, however, Durón does not include a final section in duple meter, but ends the piece in triple meter, showing that by the late seventeenth century the formal components of the genre were less standardized than ever before.

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<sup>123</sup> Ibid., 93.

Example 4-26. Sebastián Durón, *Gaitilla de mano izquierda*, mm. 40-54.<sup>124</sup>



José Perandreu

Of the Spanish composers and their respective *tientos* explored in this document, the least is known about José Perandreu. Similarities between his compositions and those of other seventeenth-century composers and the inclusion of his works in a manuscript also containing pieces by Pablo Bruna and José Jiménez perhaps infer that he flourished during the mid-seventeenth century. His extant output is limited, consisting of five *tientos* (only one of which has been published in a modern edition)<sup>125</sup> and four pieces based on the Spanish *Pange lingua*.<sup>126</sup>

All five of Perandreu's *tientos* utilize the *medio registro* and contain either one or two solo voices in the treble. Though it is difficult to define with certainty the composer's

<sup>124</sup> Ibid., 92.

<sup>125</sup> See Anglés, *Antología de organistas españoles del siglo XVII*, vol. 1, 43.

<sup>126</sup> Almonte Howell, "Perandreu, José," *Grove Music Online* (accessed 4 December 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/21287>>.

style or ability based on such scant musical evidence, scholars seem to demote Perandreu to the status of a Spanish composer of lesser ability. Unlike the *tiento de medio registro* pieces of many of his contemporaries, those of Perandreu have received harsh criticism because of their long length and repetitive and monotonous character.<sup>127</sup>

Nonetheless, Almonte Howell, who is apparently familiar with more examples of the composer's output, defends his work, stating: "Although the music historians have occupied little of them, because of its excessive length and monotony, Perandreu's *tientos* reveal certain grace in its melody and interesting variety of rhythmic figurations and ingenious transformations of their initial motives."<sup>128</sup>

The *Medio registro de dos tiples, 8° alto*—synonymous with a *de tiple*—opens with a 12-measure contrapuntal section wherein the primary theme appears in the bass followed by the tenor. In m. 13 the solo presents the theme, first in the alto, followed a measure later by the soprano voice (see Example 4-27 below). Figuration is largely comprised of sequential eighth-note passages, none of which are particularly virtuosic. However, the *tiento* is far from uninteresting; the beauty of Perandreu's *tientos* comes from interplay between voices. This involves a call-and-response technique that frequently includes suspensions and incorporates some of the figuration into the bass and tenor accompanimental lines as well. Rhythmic appeal is achieved through the incorporation of triplets, diminution, and the occasional syncopation.

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<sup>127</sup> Ibid.

<sup>128</sup> López-Calo, *Historia de la música española*, 149.

Example 4-27. José Perandreu, *Medio registro de dos tiples*, 8° tono, mm. 1-15.<sup>129</sup>



The second section, in triple meter (3/2) retains the original theme. This section is almost completely devoid of figuration, allowing counterpoint itself to be the focal point (see Example 4-28 below).

Example 4-28. José Perandreu, *Medio registro de dos tiples*, 8° alto, mm. 122-136.<sup>130</sup>

<sup>129</sup> Anglés, *Antología de organistas españoles del siglo XVII*, vol. 1, 43. Available online via the Biblioteca de Catalunya at [https://botiga.bnc.cat/publicacions/Organistes\\_iii.pdf](https://botiga.bnc.cat/publicacions/Organistes_iii.pdf).

<sup>130</sup> Ibid., 47.

Atypical of the majority of *tientos* of this time period, the Perandreu piece is comprised of four different sections. After the second section in triple meter, the piece returns briefly to duple meter, but retains the feeling and style of the second section through the incorporation of quarter note triplets. This section lasts for only nine measures before returning to triple meter for the remainder of the piece. As such, the charm of Perandreu's *tientos* lies in the frequent rhythmic shifts, section and meter changes, and thematic transformation.

#### Gabriel Menalt

Like Perandreu, little is known of Gabriel Menalt and his career, though he was a much-renowned Catalanian composer during the Baroque era. Born in Martorell, near Barcelona, in approximately 1657, there is documentation that he competed for organist positions at two Barcelona churches, Santos Justo y Pastor and S María del Mar, in 1678 and 1679, respectively. He won the position at S María del Mar and continued in this capacity until his untimely death in 1687.

Two manuscripts, E-Bc M. 729 and M. 751.21, contain Menalt's extant compositions, all of which are for organ.<sup>131</sup> These compositions, some of which are for divided keyboard, include versets of Spanish hymns and *tientos*. There are six *tientos*, some of which are pieces for *medio registro* entitled *partidos*.<sup>132</sup>

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<sup>131</sup> Select *tientos* can be found in modern editions, including one in J. Muset, ed., *Early Spanish Organ Music* (New York, 1948) and another five pieces in Anglés, *Antología de organistas españoles del siglo XVII*, vols. 1 and 2, Barcelona, 1965–6).

<sup>132</sup> López-Calo, *Historia de la música española*, 149.

Menalt's *tientos* are fascinating examples of their respective genres. Most are, technically, monothematic, but the initial subjects often undergo such extensive transformations that they are barely recognizable. On this topic López-Calo states:

[the subject] is so skillful and varied in the introduction that it is what we call *divertimentos*. This term has not been used by any of those who have studied our organ music; however, I believe that one can and should use it with full peace of mind because, indeed, this technique that Menalt and other Spanish composers used has the same characteristics and functions of the fugue *divertimentos*.<sup>133</sup>

Menalt's *Tiento partido de mano izquierda, 1º tono* typifies the long-note, short-note subject, as it begins with one whole note, followed by two half notes before progressing to quarter-note movement, as seen in Example 4-29 below.

Example 4-29. Gabriel Menalt, *Tiento partido de mano izquierda, 1º tono*, mm. 1-8.<sup>134</sup>



In many ways Menalt's subjects appear to be a product of an earlier time, and yet, he utilizes a variety of compositional techniques that are characteristic of his own era. For example, the composer sometimes uses arpeggiation, leaps of an octave or more, and figuration that resemble Alberti-bass style writing that might be more suited to other keyboard instruments. Solo lines are frequently scalar, as seen in Example 4-30 below. The

<sup>133</sup> Ibid. Translation by author.

<sup>134</sup> Anglés, *Antología de organistas españoles del siglo XVII*, vol. 2, 22. Available online via the Biblioteca de Catalunya at <https://botiga.bnc.cat/publicacions/organistesii.pdf>.

figurative solo bass line is accompanied by the upper three parts, chordal material, full of suspensions, which is reminiscent of the *tiento de falsas*.

Example 4-30. Gabriel Menalt, *Tiento partido de mano izquierda*. 1° tono, mm. 34-38.<sup>135</sup>



The *tiento*'s second section begins in m. 67. This section, in compound duple meter, employs the use of the initial thematic material in lieu of new material. Though the solo remains in the bass, figurative material that is derived from the initial subject, can also be found in the soprano parts. The solo line is primary sequential and while the movement is continuous, it lacks the ingenuity and vivacity of many of Menalt's contemporaries.

The *Tiento partido de mano izquierda*, 8° tono, calling for a bagpipe stop (*gaitilla*) in the bass, is similar in construction to the Menalt *tiento* described above. Though the primary subject is adventurous and syncopated, Menalt employs the same type of figuration and accompaniment as that found in the *Tiento partido de mano izquierda*, 1° tono. Menalt incorporates the initial thematic material into the entirety of the composition, including in a second section in ternary meter. While his compositions convey a certain vibrancy, they lack the contrapuntal complexity of many other *tiento* composers. This is exhibited by Menalt's frequent use of the solo bass line juxtaposed with simple block chords as the accompaniment, as seen in Example 4-31 below.

<sup>135</sup> Ibid., 23.



Example 4-31. Gabriel Menalt, *Tiento partido de mano izquierda*. 8° tono, mm. 83-87.<sup>136</sup>



Menalt's final *medio registro* composition, the *Tiento partido de mano derecho*, 8° tono follows the same formal structure as the rest of the composer's output. The initial theme of this particular *partido* is interesting in that rhythmically it matches the primary theme of the *tiento partido de mano izquierda*. 8° tono. It is a multisectional piece, with the second section being in compound triple meter.

Menalt's organ works can be found in *Obras completas para organo*.<sup>137</sup> The six surviving *tientos* are contained in volume 1 of the edition, while volume 2 includes hymn settings (including settings of the Spanish *Pange lingua* and the *Sacris Solemnis*) and sets of *versos*.

Pablo Bruna

Pablo Bruna (1611-1679), known as *el ciego de Daroca* (the blind man of Daroca) due to his blindness (caused by a case of smallpox in his early youth), became one of the most renowned organists between Correa de Arauxo and Juan Cabanilles. He spent the

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<sup>136</sup> Ibid., 31.

<sup>137</sup> Pablo Bruna, *Obras completas para organo*, vols. 1 and 2 (Mollerussa, Spain: Scala Aretina Ediciones Musicales, 2002).

majority of his career as organist of the collegiate church of Santa María in Daroca, a post he assumed in 1631. He continued in this position for over forty years until 1674 when he was named *maestro de capilla* of the same establishment. He was also known as a great pedagogue, having such distinguished students as Pablo Nassarre and Bruna's two nephews, Diego Xaraba y Bruna (1652-1716) and Francisco Xaraba y Bruna (d 1690), both of whom secured prestigious positions in various churches and the royal chapel in Madrid.<sup>138</sup>

A large number, some 32, of Bruna's organ compositions have survived to the present day. These include an incomplete collection of versets, seven *Pange lingua* settings, and numerous *tientos*. There are several excellent modern editions of Bruna's organ works. In addition to a number of partial anthologies, such as those by Anglés and other influential editors, there are two complete works editions that are worthy of mention here.<sup>139</sup> The first, edited by Julián Sagasta Galdós and now somewhat difficult to obtain, is the first complete edition of the composer's works and, to this end, remains an important source, despite certain editorial errors.<sup>140</sup> It is also an excellent source of biographical material and theoretical information on modes, mensuration, and prolation. The Galdós edition includes twenty-two *tientos*, etc., three sets of *versos*, and seven settings of the Spanish *Pange lingua*.

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<sup>138</sup> Almonte Howell and Louis Jambou, "Bruna, Pablo," *Grove Music Online* (accessed 1 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/04161>>.

<sup>139</sup> López-Calo, *Historia de la música española*, 146.

<sup>140</sup> Julián Sagasta Galdós, ed., *Obras completas para órgano de Pablo Bruna* (Zaragoza: Institución Fernando el Católico de la Excma. Diputación Provincial, 1979).

A more recent edition, also published by the Institución Fernando el Católico de la Excma. Diputación Provincial, has been edited by Carlo Stella.<sup>141</sup> This version varies from the Galdós publication in that it includes all of Bruna's surviving organ works. The editorial processes appear to be more thorough; Stella has corrected perceived errors in the original manuscripts, fixing issues that the blind Bruna would presumably have been unable to correct. Despite these changes, Stella appears to be as faithful as possible to the notations found in Bruna's manuscript copies, such as the inclusion of the compositions' original clefs. A historical preface also aids the reader in the understanding of Bruna's life and works.

The manuscripts that contain the works of Pablo Bruna—anthologies that also include compositions by other composers—are found in libraries throughout Spain and Portugal. There are three manuscripts at the Biblioteca de Catalunya in Barcelona, Ms. 729, Ms. 751, and Ms. 387; two manuscripts are housed at the Biblioteca Nacional de Madrid, Ms. 1359 and Ms. 1360; one is located at El Escorial, LP 30; and one can be found at the Biblioteca Municipal de Oporto: N. 1577.<sup>142</sup>

The Barcelona manuscripts are often considered to be the most important sources of Bruna's works, due both to the sheer number of works they contain and their ability to be positively attributed to the composer. Of these, Ms. 729 and Ms. 751 contain *medio registro* pieces. Ms. 729 includes two *partidos de mano derecho* and one *partido de mano izquierda* on the first tone and one *partido de mano derecho* and two *partidos de mano*

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<sup>141</sup> Carlo Stella, ed., *Obras completas para órgano de Pablo Bruna* (Zaragoza: Institución Fernando el Católico de la Excma. Diputación Provincial, 1993). It is interesting to note that both the Galdós and Stella editions were edited by the same institution.

<sup>142</sup> Galdós, *Obras completas para órgano de Pablo Bruna (1611-1679)*, 9.

*izquierda* on the fifth tone.<sup>143</sup> The unfinished Ms. 751 has some missing pages and others that are in bad condition. Along with some psalm settings and a setting of the Spanish *Pange lingua* and assorted *tientos*, it contains two *partidos de dos tiples*.<sup>144</sup>

Manuscripts 1359 and 1350, housed at the Biblioteca Nacional de Madrid were compiled between 1706 and 1709 by Antonio Martín y Coll. Almost all of the works are anonymous, although works by Antonio de Cabezón, Aguilera de Heredia, Frescobaldi, Cabanilles, Ximénez, and other notable composers are present. All of the Bruna works found in these manuscripts are also included in those of the Barcelona holdings, making it possible to identify pieces by the composer. Ms. 1359 is unique in that it contains a *Juego de Pange lingua por de la sol re*, a piece written for *dos tiples*. Ms. 1360 does not contain any *tientos de medio registro* by the composer.<sup>145</sup>

The El Escorial manuscript is interesting that it includes the title *obra* only three times and the title *tiento* only twice.<sup>146</sup> Despite the fact that the source contains *registro partido* pieces, they do not bear the titles *medio registro*. It is also of note that the pieces found within this manuscript are not in the more important and more extensive Barcelona manuscripts, begging the question of where the compiler of this manuscript found the otherwise unknown pieces by Bruna. Of note in this manuscript are one *partido de mano*

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<sup>143</sup> Ibid., 9.

<sup>144</sup> Ibid.

<sup>145</sup> Ibid., 10.

<sup>146</sup> The El Escorial manuscript was first studied and partially transcribed in 1882 by P. Luis Villalba in *La Ciudad de Dios*, vol. XL, 1886; he was the first to describe this important manuscript.

*derecho* on the first tone, a *partido de dos tiples* (a *gaitilla*) on the second tone, and a *partido de tiple* and a *partido de bajo* on the eighth tone.<sup>147</sup>

The manuscript Biblioteca Municipal de Oporto, N. 1577, is perhaps the most intriguing of the Bruna sources. It contains only one *tiento*, written in *cifra*, by the composer. Titled *Registro alto de clarim 8° tono*, it is questionable whether the pieces, or, at the very least, the title is by Bruna, who rarely indicated a specific solo voice in his titles. According to Kastner, who considered this piece in detail in *Anuario musical* I, 143, the manuscript dates from the end of the seventeenth or the beginning of the eighteenth century. While the title is in Portuguese, the piece is written in Spanish *cifra*. Consequently, it is likely that the title was the addition of the copyist and not by Bruna himself.<sup>148</sup>

Bruna's *tientos* adhere in many respects to those of his contemporaries. They are generally in duple meter and some are polythematic, though, like Aguilera, he also composed those of the monothematic variety, which are strict in this respect; the material may be changed slightly, but it is obvious that the secondary thematic material is derived from the first and it always moves from tonic to dominant. His repetition of motivic material usually further expands to a variety of tonal levels, creating modulatory sections that also incorporate the primary theme.

There is, however, one particular characteristic that makes the blind composer's pieces stand out: his consistent expansion of the length and scope of the *tiento*. This trend would be fully realized in the compositions of Juan Cabanilles, but Bruna's *tientos* are proof of a steadily-growing genre. Bruna's *medio registro* pieces show both the expansion of form

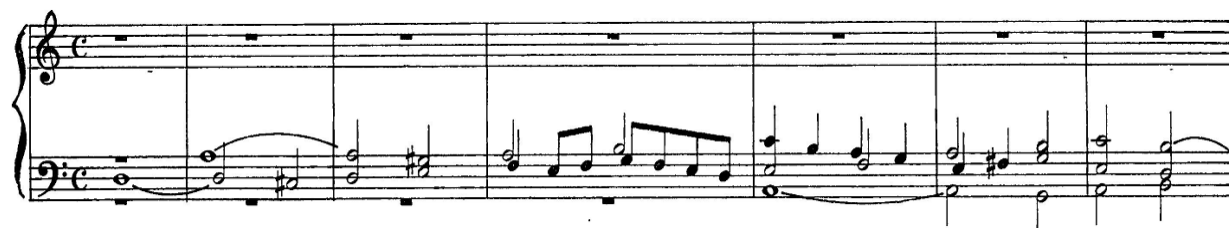
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<sup>147</sup>Ibid., 9.

<sup>148</sup> Ibid., 10-11.

and the adherence to motivic material that are representative of almost all of his organ works. He derives the motivic material found in the initial figurative, solo sections from the primary subject material; later sections often introduce new motives that are combined with fragments of primary subject material to create new imitative sections. This is clearly illustrated in mm. 1-7 of Bruna's *Tiento de 1° tono de mano derecha y en medio a dos tiples* (Example 4-32) and mm. 42-46 (Example 4-33) of the same piece. Here, Bruna has brought back the initial theme in between sections of solo material (in the bass [mm. 44-45], tenor [mm. 46-47], and soprano [m. 47]).<sup>149</sup>

Example 4-32. Pablo Bruna, *Tiento de 1° tono de mano derecho y en medio a dos tiples*, mm. 1-7.<sup>150</sup>



Example 4-33. Pablo Bruna, *Tiento de 1° tono de mano derecho y en medio a dos tiples*, mm. 42-49.<sup>151</sup>



<sup>149</sup> Ibid., 146.

<sup>150</sup> Anglés, *Antología de organistas españoles del siglo XVII*, vol. 2, 47. Available online via the Biblioteca de Catalunya at <https://botiga.bnc.cat/publicacions/organistesii.pdf>.

<sup>151</sup> Ibid., 48.

As was typical of the time (especially represented in the works of Aguilera de Heredia, but also seen in the above works by Menalt), Bruna's *tientos* usually begin in duple meter and include a second section in triple meter. Two-section *tientos* end with such triple meter sections, while in select cases Bruna includes a third section, based on a new theme and returning to duple meter.<sup>152</sup>

An example of this formal structure can be seen in the *Tiento de 5° tono de mano izquierda y en medio a dos bajos*. A long-note subject gives way to scalar figuration. Further entrances of the subject alternate with additional solo passages (with some of the lines being echoed by the accompaniment). The middle, triple meter section (beginning in m. 70) introduces new thematic material that alternates with more simplistic solo lines based on the new theme. The third section returns to the thematic material of the first section, found in m. 120 in diminution.

This piece is of note within Bruna's output in that he does not conclude the work with the third section, but rather includes a fourth and fifth section, in triple and duple meter, respectively. The fourth (m. 211) returns to triple meter and begins a rhythmically modified version of the primary theme, which pervades this portion of the piece. Bruna then increases the rhythmic interest of the work by incorporating an eight-measure segment in 12/8 and one measure in 6/8 before returning to duple meter in the final four measures of the composition. Such a piece shows that composers of Bruna's generation were exploring the genre's formal capabilities and steadily reimagining it.

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<sup>152</sup> López-Calo, *Historia de la música española*, 148. Alternatively, as is the case with the *Tiento de medio registro a dos tiples de 1° tono*, the piece may be a hybrid of the aforementioned layouts; the lengthy piece is divided into two sections, one in duple and one in triple, but contains a short, three-measure "coda" in duple meter.

## Francisco Andreu

Like José Perandreu, almost nothing is known of the life of seventeenth-century composer Francisco Andreu. Three of his extant *tientos* have been published by José María Álvarez and these pieces are remarkably different from almost all other *tiento de medio registro* compositions of this time period.<sup>153</sup> All three works are comprised of three voices, in lieu of the four or more that were the norm. The first of the three pieces, a *lleno* composition denoted as *tiento lleno a tres*, is not intended for the use of divided stops; according to López-Calo, this section more resembles a *minuet* of the time than a *tiento*.<sup>154</sup>

The second of Andreu's *tientos* is a *medio registro* piece given the title *tiento partido de mano derecho a tres*. It is the most peculiar of the composer's rather unorthodox output for organ. The first section is in triple meter, in lieu of the more customary duple opening of most other *tientos* (as seen in Example 4-34 below).

Example 4-34. Francisco Andreu, *Tiento partido de mano derecho a tres*, mm. 1-6.<sup>155</sup>  
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<sup>153</sup> See José María Álvarez Pérez, ed., *Colección de obras de organo de organistas españoles del siglo XVII* (Madrid: Unión Musical Española, 1970).

<sup>154</sup> López-Calo, *Historia de la música española*, 150.

<sup>155</sup> Álvarez Pérez, *Colección de obras de organo*, 24.



Despite this unconventional aspect, Andreu does employ imitative counterpoint in the opening subject. This is followed by figuration that is simple and unassuming in comparison to that found in the works of other composers of the time; it generally includes basic sequential passages and the occasional ornament or embellishment. However, it appears he cannot long adhere to this rudimentary style of writing and in m. 41 Andréu shifts to triple meter containing a *medio registro* solo in the right hand that, like the virtuosic material found in the third *tiento*, does not seem suited for performance on organ. Most peculiar is a three-bar interlude of sorts, marked *adagio*, following the 6/8 section. This is not the end of the piece, however, as sections marked *giga* and an *allemanda* follow. While the *giga* retains the three-part texture of the first two sections of the composition, in the *allemanda* the texture reduces to only two parts; often the right hand solo is accompanied by only a whole note in each measure. This piece is unique in the *medio registro* literature and marks Andréu's ability to combine genres and stray from the formal constraints of the genre; both the structure and the style suggest that the piece would be more suitably performed on a harpsichord.<sup>156</sup>

The third *tiento*, *Tiento a tres sobre el himno Ave maris stella*, is a *partido de mano derecho medio registro* composition and one of the first *tientos* of this period based on this hymn. The piece begins with a subject, combining both disjunct and stepwise motion (see Example 4-35 below). Sections of the *tiento* are reflective of the *de falsas* though frequent florid and non-idiomatic figuration in the right hand, which is better suited to other keyboard instruments, make this *tiento* an interesting mixture of processes.<sup>157</sup>

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<sup>156</sup> Ibid.

<sup>157</sup> López-Calo, *Historia de la música española*, 150-151.

Example 4-35. Francisco Andreu, *Tiento a tres sobre el himno Ave Maris Stella*, mm. 1-8.<sup>158</sup>

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Andreu's use of figuration is unique to the composer and consists of frequent arpeggiation outlining the accompanying harmonies (Example 4-36) and repeated notes that are unusual in the works of his contemporaries.

Andreu's use of the initial subject is preserved in its original form in subsequent occurrences. This subject reappears in m. 38 and is followed by more figuration that is relatively indistinguishable from that found after the initial appearance of the subject.

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<sup>158</sup> Alvarez Pérez, *Colección de obras de organo*, 28.

Example 4-36. Francisco Andreu, *Tiento a tres sobre el himno Ave María Stella*, mm. 25-30.<sup>159</sup>

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Andreu's hymn-based *tiento* is multisectional, the second of which is in triple meter. Unlike the first part, wherein the composer preserves the integrity of the initial thematic material with little to no transformation, the theme immediately displaces the note *a* in the solo line up an octave (no doubt to allow for the use of the *registro partido* in the treble) and the thematic material is completely absent from the tenor line (Example 4-37 below). The remainder of the piece largely includes figuration resembling that of the first section. The initial theme of the first section is not blatantly reiterated, but the melodic ideals are interspersed throughout the entire piece.

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<sup>159</sup> Ibid., 29.

Example 4-37. Francisco Andreu, *Tiento a tres sobre el himno Ave María Stella*, mm. 62-66.<sup>160</sup>

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Andreu's *tientos* demonstrate that, despite being one of the lesser-known composers of the genre, he was able to craft imaginative pieces that tested the formal and stylistic definitions of the *tiento de medio registro*.

#### Juan Cabanilles

Juan Bautista José Cabanilles (baptized 1644-1712) is widely recognized as one of the most renowned and prolific Spanish musicians of his day, and the most important Spanish organ composer after Correa de Arauxo. Born in Algemesí, he began his musical education as a choirboy at Algemesí and Valencia Cathedral. He quickly showed a proclivity for organ playing and, in 1665, succeeded Jerónimo de la Torre as second organist at Valencia Cathedral, quickly ascended to the position of first organist the following year; in accordance with cathedral rules stating that the organist must take holy orders, Cabanilles began the road towards priesthood and was ordained in 1668.<sup>161</sup>

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<sup>160</sup> Ibid., 31.

<sup>161</sup> Barton Hudson, "Cabanilles, Juan Bautista José," *Grove Music Online* (accessed 1 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/04504>>.

Though he held the position at Valencia Cathedral until his death in 1712, his later life was plagued with health problems and he was often unable to perform his duties. Nonetheless, it appears that he traveled widely and his music was extensively disseminated by his devotees and students. According to his student José Elías, Cabanilles was frequently requested to perform for feast day services in important French churches and perhaps also in Italy. Though his music typifies the Spanish school (and, indeed, he was often emulated by his contemporaries), he was cognizant of other musical traditions, including those of Italy and the Netherlands.<sup>162</sup> Consequently, Cabanilles is considered to be one of the last great composers of the organ tradition established by Aguilera, Correa, and other well-known predecessors. He was renowned throughout the Iberian Peninsula and France for his command of compositional techniques and the complexity and development of his counterpoint.<sup>163</sup>

This widespread popularity appears to be a result of a prodigious and original talent. A manuscript, containing copies of works by the master musician, was compiled by Cabanilles pupil Estevan Naronda in 1722.<sup>164</sup> The elder composer's tutelage must have had quite the impact on the young Naronda for him to undertake such a project; Naronda himself proclaims Cabanilles to be the "great master" and inscribes the manuscript with the weighty declaration: *Ante ruet mundus quam surget Cabanilla secundus* (the world will fall to ruin before a second Cabanilles arises).<sup>165</sup>

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<sup>162</sup> Bernadette Nelson, "A Spanish inquisition," *Choir & Organ* 7/5 (September 1999), 26. *Academic Search Complete*, EBSCO host, accessed 14 2012).

<sup>163</sup> Hudson, "Cabanilles, Juan Bautista José."

<sup>164</sup> The document is preserved as Biblioteca de Catalunya Ms. 386 (Barcelona).

<sup>165</sup> Nelson, "A Spanish inquisition," 26.

Cabanilles's extant organ music consists of at least 230 *tientos*, *obras*, and *batallas*, 75 *Pange lingua* and other hymn settings, and over 1000 *versos*.<sup>166</sup> Of this vast repertoire, only a fraction has been published. Consequently, a small portion of the surviving organ music can be found in a number of modern editions. One of the earliest, *Musici Organici Iohannis Cabanilles*, was compiled and edited by Higinio Anglés in the late 1920s and early 1930s.<sup>167</sup>

Though there have been considerable strides in recent decades to publish more of Cabanilles's works, the pieces found in the aforementioned sources still constitute only a portion of the composer's overall output. Currently available are seven *medio registro de tiple* compositions, five *medio registro de bajo* works, four *medio registro de dos tiples*, two *medio registro de dos bajos*, and two *medio registro de dos tiples y dos bajos*. These *medio registro* pieces are often titled *partidos* (for example, *partido de mano derecho*) in lieu of the more common *medio registro* designation used by most other Spanish composers.<sup>168</sup>

Cabanilles' *tientos* are notable for their expanded length and scope, many of which are over 200 measures long. Examples include the 209-measure *Tiento 2° tono por G sol re*

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<sup>166</sup> Ibid.

<sup>167</sup> Higinio Anglés, ed., *Musici Organici Iohannis Cabanilles*, 4 vols., (Barcelona: Biblioteca de Catalunya, 1927-1936). Volume one consists of the *tientos*, volume 2 contains the *passacalles*, *paseos*, numerous *toccatas*, *xácaras*, and other miscellaneous compositions, and volumes three and four are composed of various genres. In the mid-1980s scholar José Climent edited three more volumes, comprised mostly of *tientos*. These are as follows: volume 5 (1986): *tientos* 71-90 and Magnificat and *Pange lingua versos*; volume 6 (1989): *tientos* 91-110 and numerous *versos*; and volume 7 (1992): *tientos* 111-130, in addition to *versos* for the Mass, festival days, and other miscellaneous *versos*. Also especially helpful for the study of Cabanilles's *tientos* is *Música de Tecla Valenciana, J. Bta. Cabanilles*, 4 vols., ed. Julián Sagasta Galdós (Valencia: Edicions Alfons el Magnànim, 1986-1993). This collection is comprised mostly of *tientos* and includes more detailed information regarding the pieces. One final source should be mentioned. A large number of recently-discovered works (well over a hundred of which are by Cabanilles) can be found in CEKM, vol. 48-1: *Keyboard Music from the Felanitx Manuscripts*, I, ed. Nelson Lee (1999).

<sup>168</sup> James Dalton, "Iberian Organ Music Before 1700," in *The Cambridge Companion to the Organ*, Nicholas Thistlethwaite and Geoffrey Webber, ed., 174.

ut, a *partido de dos triples*, and the 304-measure *Tiento 2° tono, partido de dos bajos*. In general, these pieces open with the typical imitative section. Some pieces begin with a brief homophonic section, but this quickly gives way to imitative counterpoint. Meter changes (Cabanilles appears to have been partial to the duple-triple-duple construct) provide rhythmic interest and allow for clear delineation between sections. The counterpoint is frequently interrupted by virtuosic sections and the introduction of new themes is customary. Stylistically the *tientos*, like Cabanilles's *toccatas*, with which the *tientos* share striking similarities, are difficult to summarize, as he employed a remarkable number of devices (diminution and augmentation being two of the composer's favorites), textures, and other compositional approaches.<sup>169</sup>

Cabanilles's abilities as a composer are clearly exhibited by the variety of styles and methods he is able to incorporate into his *tientos*. In his works he combines a free style of imitation, which is flexible without being loose, artless, or unsophisticated, with other Baroque components and elegant figuration that solidifies his place within seventeenth-century Spanish organ music.

The array of styles used by Cabanilles can be seen by contrasting the composer's *Tiento 5° tono, partido de dos bajos* with another work for two bass solos, the *Tiento 2° tono, partido de dos bajos*. Major differences in character and design are apparent from the openings of each piece. In the opening of *Tiento 5° tono, partido de dos bajos*, Cabanilles utilizes a half-note subject in triple meter (Example 4-38 below). The choice of meter is unusual, though not unprecedented, for the first section of a *tiento*, but what is more

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<sup>169</sup> Murray C. Bradshaw, "Juan Cabanilles: The Toccatas and Tientos," *The Musical Quarterly* 59/2 (April 1973), 294-295.

striking is the overall lack of texture changes throughout the remainder of the 180-measure piece. The initial theme is used ubiquitously at different pitch levels throughout the first 47 measures of the piece. In m. 48, Cabanilles presents the first solo material, which is unrelated to the initial theme (see example 4-39). In m. 89 Cabanilles returns to the chordal writing of the beginning, introducing a new theme that opens with the same interval of a fourth, but appears otherwise disparate from previous material. The overall composition is divided into sections not by meter, but by theme, and the piece is essentially devoid of the figurative material so fundamental to the genre.

Example 4-38. Juan Cabanilles, *Tiento 5° tono, partido de dos bajos*, no. 55, mm. 1-10.<sup>170</sup>



<sup>170</sup> William R. Shannon, ed., *Libro de obras de organo* (Biblioteca de Catalunya, Ms. 386), 1. Transcribed by Shannon. Available online at [http://imslp.org/wiki/Tiento\\_No.55\\_\(Cabanilles,\\_Juan\)](http://imslp.org/wiki/Tiento_No.55_(Cabanilles,_Juan)).



Example 4-39. Juan Cabanilles, *Tiento 5° tono, partido de dos bajos*, no. 55 mm. 46-53.<sup>171</sup>



By comparison, the *Tiento 2° tono, partido de dos bajos* is more representative of Cabanilles's writing for *registro partido*. The theme is presented exactly as expected—first in the soprano (m. 1), followed by alto (m.3), tenor (m. 7), and bass (m. 9) (see Example 4-40). The exposition immediately gives way to figuration characterized by third leaps and stepwise motion in the two solo lines.

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<sup>171</sup> Ibid., 2.

Example 4-40. Juan Cabanilles, *Tiento 2º tono, partido de dos bajos*, no. 81, mm. 1-12.<sup>172</sup>



Cabanilles adheres to the normal formal scheme, alternating sections of chordal and figurative material, with overarching parts being defined by meter; in this case, the duple-triple-duple format found in many of his works. The delineation of sub-sections is defined by changes in texture and cadential material. Such a division can be seen in mm. 30-31 of the *Tiento 2º tono, partido de dos bajos*. Here Cabanilles concludes an ornamented section with a G-major cadence preceded by a written-out ornament located in the tenor line of m. 30 (see Example 4-41 below).

Example 4-41. Juan Cabanilles, *Tiento 2º tono, partido de dos bajos*, mm. 30-31.<sup>173</sup>



<sup>172</sup> Shannon, *Libro de obras de organo* (Biblioteca de Catalunya, Ms. 386), 1. Transcribed by the editor. Available online at [http://imslp.org/wiki/Tiento\\_No.81\\_\(Cabanilles,\\_Juan\)](http://imslp.org/wiki/Tiento_No.81_(Cabanilles,_Juan)).

<sup>173</sup> Ibid., 2.

In later sections of the *tiento*, Cabanilles shows his mastery of the form. Complex, self-replicating virtuosic solo writing found throughout the piece, but especially exemplified by m. 81-84 (Example 4-42 below), a triple meter section employing triplets, chains of suspension in the manner of the *de falsas*, and a *toccata*-esque coda are but a few of the diverse components that helped make Cabanilles the zenith of *tiento* writing in the seventeenth century.<sup>174</sup>

Example 4-42. Juan Cabanilles, *Tiento 2º tono, partido de dos bajos*, mm. 81-84.<sup>175</sup>



### **The *Tiento de medio registro* in the Eighteenth Century**

By the opening of the eighteenth century the most important period of *tiento* composition was over. Though Iberian composers continued to write in the genre, this seems more out of devotion to tradition than anything else, and the character of *tientos*

<sup>174</sup> For further information on the organ works of Cabanilles see Mary Jane Corry, “The Keyboard Music of Juan Cabanilles: A stylistic analysis of the published works” (Ph.D. diss., Stanford University, 1966).

<sup>175</sup> Ibid., 4.

changed slowly, incorporating stylistic changes that were less idiomatic to the organ. As a result, the term itself continued to lose its clear meaning. According to Jambou and Ridler,

In the first half of the 18th century *tientos* were written chiefly by Mediterranean composers (Llussa, Clausells), who moved away from the modal organ *tiento*, developing tonal and formal structures that tended towards the prelude and fugue. Thereafter, the *tiento*, like other early genres, did not attract composers until the second third of the 20th century. Examples are found in works by Rodolfo and Cristobal Halffter, Maurice Ohana and Manuel Castillo.<sup>176</sup>

The *tientos* of the eighteenth century shows an abundance of styles, some of which, like their predecessors, continue to show striking similarities to the Italian *ricercar* and *toccata*. Cabanilles blurred the lines between *tiento* and *toccata*, producing a multitude of pieces that are indistinguishable in many respects. Some more progressive works combine *ricercar*-like sections with virtuosic, figurative sections, and in other pieces the figurative sections far outweigh the presence of imitative counterpoint; these pieces fully exploit the divided keyboard and the new, expanded tonal palette of the eighteenth-century Spanish organ. Regardless of the growing heterogeneity of the genre, by the late eighteenth century, the *tiento de medio registro*, continued to decline in popularity as the development of the bipartite sonatas, including those by Domenico Scarlatti, Lidón, and Soler, became more stylish.

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<sup>176</sup> Ridler and Jambou, "Tiento."

## Pablo Nassarre

Aragón native Pablo Nassarre (c 1654-c 1730) was, like Bruna (who, consequently, served as Nassarre's organ teacher), completely blind from his youth. At the age of twenty-two Nassarre became a Franciscan and for most of his adult life he occupied the position of organist at the Monasterio de San Francisco in Zaragoza.<sup>177</sup>

His surviving output includes: a theoretical treatise, entitled *Fragmentos músicos*, which addresses several topics, including mensuration, counterpoint, plainchant, and the treatment of dissonances; *Escuela música*, his most famous and extensive publication (1723-24); and a few select compositions, including a *toccata* and a *medio registro* piece, the *Tiento a cuatro, partido de mano derecho*.<sup>178</sup>

Nassarre's compositional style is conservative and, as is seen in his theoretical writings, this was wholly intentional. In the composer's one extant *tiento*, the *Tiento a cuatro*, the initial theme (as seen in Example 4-43 below) would be at home in a Cabezón *tiento*.

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<sup>177</sup> Almonte Howell and Juan José Carreras, "Nassarre, Pablo," *Grove Music Online* (accessed 13 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/19595>>.

<sup>178</sup> Ibid.

Example 4-43. Pablo Nassarre, *Tiento a cuatro, partido de mano derecho*, mm. 1-7.<sup>179</sup>  
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The piece begins with not one but two different themes, the first one being presented in the bass, followed by the alto, and theme two appearing in the tenor and then as the opening of the solo line. The piece itself is in two sections, the second of which is in triple meter. Nassarre's figuration is nothing extraordinary and, while the composer incorporates various rhythmic alterations to create interest, the lines themselves consist of the usual scalar and sequential passages. From this one example it would seem that Nassarre desired to preserve the character and components of a genre that was quickly becoming outdated.

José Elías

A contemporary of Bach and Handel, José Elías (c 1678-c 1755) was born in Catalonia<sup>180</sup> and became the most famous pupil of Juan Cabanilles; during his study he is said to have studied and performed more than 300 works by his teacher. Records from his

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<sup>179</sup> Alvarez Pérez, *Colección de obras de organo*, 60.

<sup>180</sup> Scholars have long debated the place of the composer's birth. Most now consider Catalonia as the location where he grew up and worked. This is based on a letter of approval he penned for the publication of Antonio Martín y Coll's 1734 treatise *Breve Suma de todas las reglas de Canto llano y su explicación*, in which Elías states that he was "de una misma Patria." See Joanne Althouse, "José Elías (c 1678-1755) and Late Baroque Organ Music in Spain" (Ph.D. diss. University of California, Los Angeles, 1998), 1.

early life are sparse and the first reliable documentation comes from 1712, when the young organist competed against five others for the position at the Benedictine monastery San Pere de las Puellas in Barcelona. Though all were notated as proficient in church records, Elías entered the post.<sup>181</sup>

Starting in April of 1715, Elías applied for more prestigious positions. Like many organists of his time, Elías became a priest, and from 1715 to 1725 he lived in Barcelona where he served as organist at SS Justo y Pastor. After his tenure in Barcelona he left the post and relocated to Madrid where he became *Capellán de su Majestad* (a position that was comprised of both a title and a monetary stipend) as well as principal organist at the convent of the Descalzas Reales.<sup>182</sup> Elías was one of the most highly-regarded Spanish organists and composers of his time. The organists José de Nebra and Sebastian Albero, who were then organists at the Royal Chapel, praised his abilities as a musician and composer, and Joaquin Oxinaga, in the preface to his own organ works stated that Elías was the “father and patriarch of good organists.”<sup>183</sup> Little is known of Elías’s later life and though there is record of a Joseph Elías in Segovia from 1739 to 1741, it is doubtful if the two organists are one and the same.<sup>184</sup>

During his years at the Descalzas Reales, Elías assembled a collection of his own music entitled *Obras de órgano entre el antiguo y moderno estilo* (Pieces for Organ Between

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<sup>181</sup> Ibid., 2.

<sup>182</sup> Ibid., 5-6. According to Althouse, Elías’s role as chaplain for the Bourbon court was recognition of the composer’s abilities and renown, given the preference for Italian musicians at court at this time.

<sup>183</sup> Almonte Howell and Louis Jambou, “Elías, José,” *Grove Music Online* (accessed 5 December 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/08712>>.

<sup>184</sup> Ibid.

the Ancient and Modern Style), dating from approximately 1749. Though the collection was never published, it was supported by the Royal Chapel organists Albero, Nebra, and Oxinaga, who provided *dictámenes* (letters of support), which speak to Elías's great talent and recommend the collection's publication.<sup>185</sup>

In addition to the many pieces found within this manuscript, there is a huge body of his organ music extant; some five hundred pieces found in various manuscripts in library archives throughout Spain.<sup>186</sup> Elías's corpus of organ music is comprised of sets of short, liturgical versets (some 436, many of which are fugal in nature) and larger-scale pieces such as *tientos* and *tocatas*. His twenty *tientos*—compared to 300 by Cabanilles—often employ the use of *falsas*.<sup>187</sup>

It is likely that the majority of Elías's *tientos* were written in the early compositional phase of his life. Of the twenty *tientos* (some of which are entitled *lleno*, *de falsas*, or *de contras*) only four are written for *registro partido*—two entitled *partido de mano derecho* and two labeled as *partido de mano izquierda*. Both show striking similarities to those written by the master Cabanilles.<sup>188</sup>

They differ slightly from those of his compositional mentor in that they consist of more tightly-woven counterpoint, contain voice exchanges, and include musical material

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<sup>185</sup> Althouse, "José Elías," 6.

<sup>186</sup> Ibid., 6.

<sup>187</sup> Elías's works are published in several partial collections and anthologies as well as the following complete works edition: José M. Llorens, Julián Sagasta Galdós, and Montserrat Torrent, eds., *Obras completas* (Barcelona: Biblioteca de Catalunya, vol. IA [1971], vol. 1B [1975], vol. IIA [1981], vol. IIB [1986]). Volumes IA and IIA contain *tientos* and other such works, while volume IB consists of extended works, including hymns settings, and volume IIB contains the composer's many *versos*. Like those by López, the compositions by Elías display a transition to the Classical style.

<sup>188</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 177-178.



that reflects the Alberti-bass style accompaniment that was becoming popular at this time.<sup>189</sup> These techniques can be seen in the *Tiento 6 tono partido de mano derecho*, which utilizes syncopation, diminution, and transformation to bring variety to the piece.<sup>190</sup>

Though Elías's compositions for *medio registro* are limited in number, especially in comparison to those of Cabanilles, they are reminiscent, if not at the same level, of his prodigious and renowned teacher. Some adhere to the older Baroque style containing contrasting sections of dense counterpoint and florid figuration; the limited number supports the idea that the prominence of the genre was already dwindling by this time.<sup>191</sup> As a result, Elías is often viewed as a transitional figure in that his compositions blend typical Baroque compositional techniques and forms with those of the eighteenth century, such as the sonata and the concerto.<sup>192</sup>

### Antonio Martín y Coll

The Castilian composer Antonio Martín y Coll grew up at the monastery of San Diego de Alcalá, where his early musical training came from Andrés Lorente. He stayed at San Diego for several years after becoming a Franciscan and assuming the post of organist for the monastery.<sup>193</sup> He would eventually leave for Madrid when he accepted the post of

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<sup>189</sup> Althouse, "José Elías," 56.

<sup>190</sup> Ibid. Further analysis of this piece can be found on pp. 72-77.

<sup>191</sup> Ibid., 30.

<sup>192</sup> Howell and Jambou, "Elías, José."

<sup>193</sup> B. Jeanne Martinelli Hansen, "A Selection of Keyboard Pieces from the *Pensil deleitoso* (1707) of Antonio Martín y Coll" (MA Thesis, University of Washington, 1958), i.

principal organist at the monastery of San Francisco el Grande some time after 1707; he continued as organist there until his death after 1733.<sup>194</sup>

Martín y Coll's most important contribution to musical culture of the eighteenth century can be seen in his two treatises: *Arte de canto llano* (Madrid, 1714; 2/1719 and 3/1728; the two later editions of the treatise including a secondary treatise entitled *Arte de canto de órgano*) and his *Breve suma de todas las reglas de canto llano y su explicación* (Madrid, 1734). He was also an important compiler of music and is responsible for the assemblage, in the years 1706-1709, of four substantial collections of organ compositions entitled *Flores de música*.<sup>195</sup> Almost every genre of organ music from the time, both sacred and secular, is included. Numerous *tientos* are found in the collection despite the fact that the genre was already experiencing a rapid decline at the beginning of the eighteenth century. The volume is comprised mostly of anonymous pieces, although works by selected composers, including Cabezón, Cabanilles, and Frescobaldi have been identified.<sup>196</sup>

Martín y Coll's own organ compositions are confined to a fifth collection, dating from 1709, entitled *Ramillete oloroso: suabes flores de música para órgano* (Fragrant Bouquet: Gentle Musical Flowers for Organ). This collection, which is comprised of 225 versets, 17 *canciones*, one *sinfonía al clarín*, and a setting of the Spanish *Pange lingua*, contains the only compositions certifiably attributable to him.<sup>197</sup>

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<sup>194</sup> Barton Hudson, "Martín y Coll, Antonio," *Grove Music Online* (accessed 5 December 2014) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/17942>>.

<sup>195</sup> Johnson, *Historical Organ Techniques: Spain*, 6. The music was likely collected during the late seventeenth century.

<sup>196</sup> Hudson, "Martín y Coll, Antonio."

<sup>197</sup> Some works from *Ramillete oloroso* have been published in: J. Sagasta Galdos, ed., *Tonos de palacio y canciones comunes* (Madrid, 1984-6).

Martín y Coll's *Flores de música* includes over twenty *tientos*, approximately half of which are written for *medio registro*. Of these, five are *medio registro de tiple*, two are *medio registro de dos triples*, three are *medio registro de bajo*, and four are *medio registro de dos bajos*. These pieces contain the usual stylistic components of a *medio registro* of the early eighteenth century: they open with an imitative section followed by alternating sections of florid figuration and imitation. Martín y Coll uses figuration and sequential extensively.

### Joan Baseya

Joan Baseya (fl 1679) was born in Mataró, near Barcelona, and is known to have achieved the post of organist and maestro de capilla of Vich Cathedral. During his lifetime he may have taught Jose Elías. It is unlikely that the "Joan Basseyá" who unsuccessfully competed for the position of organist at Santa María del Mar in Barcelona is the same person.<sup>198</sup>

Baseya's output is solely represented by three organ *tientos*.<sup>199</sup> His output for *medio registro* consists of two pieces, the *Tiento partido de dos triples. 8° tono* and a *Tiento partido de mano derecha. 1° tono*; the third and final organ composition by the composer is a *lleno* piece.

Baseya's *medio registro* works, despite being few in number, reveal a talented composer whose writing incorporates and exploits the stylistic components of a now well-

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<sup>198</sup> Almonte Howell and Louis Jambou, "Baseya, Joan," *Grove Music Online* (accessed 10 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/02202>>.

<sup>199</sup> Published in Inglés, *Antología de organistas españoles del siglo XVII*, vols. 2 and 4.

developed genre. In the *Tiento partido de dos tiples. 8° tono*, the initial theme is composed of whole notes followed by short note values (Example 4-44 below), a trend that would pervade the *medio registro* until it gradually fell out of favor.

Example 4-44. Joan Baseya, *Tiento partido de dos tiples. 8° tono*, mm. 1-9.<sup>200</sup>



The initial thematic material permeates the piece and Baseya constantly transforms it through diminution, augmentation, rhythmic changes, and the addition of intervals of a third to thematic line. He also creates the feeling of an echo, often comprised of the thematic material, between the solo treble lines and the accompaniment.

The *tiento* is in three sections. The second section, which is in triple meter, contains new thematic material, but it appears to be loosely based on the initial theme, making it difficult to tell whether Baseya intended this to be completely original material or wished to tie the entire composition together using only slight variances. Only in this section does Baseya incorporate the use of sixteenth-note figuration, relying on eighth-note figuration in the outer two sections.

The third section, which returns to duple meter, is largely contrapuntal and includes reiterations of the initial theme almost exactly as in the opening measures of the piece.

<sup>200</sup> Anglés, *Antología de organistas españoles del siglo XVII*, vol. 2, 72. Available online via the Biblioteca de Catalunya at <https://botiga.bnc.cat/publicacions/organistesii.pdf>.

Interestingly, Baseya incorporates a trumpet-like motive in the treble solo lines, which seems to signal the conclusion of the piece as well as provide rhythmic life and interest when juxtaposed with the earlier contrapuntal material. In the final line the composer strips away the motive and the figuration and once again restates the initial theme. Constructed of minimal thematic material, the work is a surprising example of the power of thematic transformation and a quality piece by a rather unknown composer.

The *Tiento partido de mano derecho 1° tono*, on the other hand, seems less inspired. The piece opens with the usual contrapuntal section presenting the primary thematic material and is followed by clearly defined alternating sections of contrapuntal and figurative material. The figuration, which consists largely of sequential and scalar passages, is less creative and lacks the interplay between voices that was so captivating in the previous composition.

Baseya observes the same three-part scheme as the earlier *tiento*, with the second section in compound ternary meter. He introduces new figurative material, but the section retains the primary theme found in the first section. The final section, like that in the previous piece, is brief, consisting of only the final page of the composition, some twenty-six measures, and again restates the initial theme in all parts. This is followed by one last burst of figurative material, the majority of which is sequential. The *tiento* is a more standard example of the genre in the seventeenth century, but it is unfortunate that more works by the composer Baseya are not extant.

## Francisco Llussa

Francisco Llussa (fl 1687-1738) was a priest, composer, church organist, and yet another figure for whom little biographical information has surfaced. He was organist at Santa María del Pino from 1687 until his retirement after 1738. All of his extant works, contained in Barcolona Ms. 729 and Astorga Ms. 736, are for organ.<sup>201</sup>

Of these compositions, only one is a *tiento*. This piece, written for left hand solo, was discovered in the 1960s, and is larger in scope than Llussa's other compositions.<sup>202</sup> There is a very clear delineation between sections of contrapuntal and figurative writing. The *tiento* is monothematic and while the piece utilizes a short note value subject, it is wholly stepwise and does not employ syncopation or dotted rhythms to increase rhythmic variation and vitality, as is typical of the period. Only in later contrapuntal sections, where the initial theme reappears, does Llussa incorporate rhythmic alteration, as seen in Example 4-45 and Example 4-46 below.

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<sup>201</sup> Almonte Howell, "Llussa, Francisco," *Grove Music Online* (accessed 11 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/16828>>.

<sup>202</sup> Published in Alvarez Pérez, *Colección de obra de organo*.

Example 4-45. Francisco Llussa, *Tiento partido de mano izquierda*, mm. 1-4.<sup>203</sup>  
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Example 4-46. Francisco Llussa, *Tiento partido de mano izquierda*, mm. 23-30.<sup>204</sup>  
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The figuration is consistent with Baroque trends: sequences, scalar passages sometimes spanning upwards of two octaves (as seen in Example 4-47 below), and octave leaps.

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<sup>203</sup> Ibid., 73.

<sup>204</sup> Ibid., 74-75.

Example 4-47. Francisco Llussa, *Tiento partido de mano izquierda*, mm. 20-22.<sup>205</sup>  
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The *tiento* is in three sections, with the second in 6/8 meter and the finally section returning to duple meter. Each section subtly transforms the initial theme, but always in a way that the material is easily recognizable and preserves the melodic outlines of the original. This can be seen in the opening of the second section (Example 4-48 below).

Example 4-48. Francisco Llussa, *Tiento partido de mano izquierda*, mm. 58-62.<sup>206</sup>  
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Llussa's *tiento* is largely idiomatic and, for the most part, refrains from using the more harpsichord-oriented styles of other eighteenth-century composers. One exception to this can be found in the third section, wherein the composer utilizes chains of sixteenth-note thirds in the right hand accompaniment (as seen in Example 4-49). While this is not

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<sup>205</sup> Ibid., 74.

<sup>206</sup> Ibid., 76.



unheard of in organ compositions (in fact, the use of eighth-note thirds in *batalla* pieces is fairly common), it is also certainly not easy to execute. As a result of these many characteristics, Llussa's *tiento* is a curious mixture of seventeenth and eighteenth-century techniques.

Example 4-49. Francisco Llussa, *Tiento partido de mano izquierda*, mm. 139-141.<sup>207</sup>  
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## Portuguese Composers

Little is known about sixteenth through eighteenth-century Portuguese organ music and its composers. This is likely due, in part, to the great Lisbon earthquake of 1755, which was responsible for the destruction of many valuable music manuscripts housed in important libraries in that city.<sup>208</sup> As a result, Manuel Rodrigues Coelho's *Flores de música* (Lisbon, 1620),<sup>209</sup> which, unfortunately, contains no works for *registro partido* (the

<sup>207</sup> Ibid., 79.

<sup>208</sup> Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 1.

<sup>209</sup> Barton Hudson, "Rodrigues Coelho, Manuel," *Grove Music Online* (accessed 11 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/23648>>. Manoel Rodrigues Coelho is today considered to be one of the most important Portuguese organ composers of the

composer is not known to have used the technique) is the only *published* collection of organ music to survive from the seventeenth century.<sup>210</sup> While this has resulted in a rather incomplete picture of Portuguese Baroque organ music, particularly its adoption and further development of the *medio registro*, the discovery and study of a number of Portuguese music manuscripts has helped to fill in some of the gaps.

The surviving manuscripts, which often contain music by both Spanish and Portuguese composers, indicate that the corpus of organ music by Portuguese composers shows striking similarities to the output of their Spanish counterparts in regards to genres and style. They include a large number of *tientos* and *obras* (including those for *registro partidos*, usually found under the Portuguese designations *registro alto*, *registro baixo* or *dois baixos*, or *registro tiple* or *dois tiples*),<sup>211</sup> *versos*, and hymn settings, as well as *fugas*, *fantasias*, and *concertos*. Sources from the second half of the seventeenth century also contain a limited number of *batalla* or *batalha* pieces, though it appears that the genre may have been more popular in Spain than in Portugal.<sup>212</sup>

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early-seventeenth century. This is due, in part, to the fact that his output, the majority of which can be found in his *Opera omnia collecta Flores de música: pera o instrumento de tecla, y harpa* (published in Lisbon in 1620), is the only organ collection to be published in both the sixteenth and seventeenth century. Coelhas (c. 1555-1635) was born in Elvas and from 1573 to 1577 was organist at Badajoz Cathedral and then at Elvas Cathedral from sometime in the 1580s to 1602, Lisbon Cathedral from 1602-1603, and the Royal Chapel in Lisbon from 1604 to 1633.

<sup>210</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 112-113.

<sup>211</sup> Titles may also contain the designations *mão direita* (right hand) or *mão esquerda* (left hand). *Lleno* pieces often appear under the title *de cheo* (full) or *ambas as mãos* (both hands).

<sup>212</sup> Parkins, "Spain and Portugal," 322.

***Libro de cyfra*, Ms. 1577, Loc. B, 5**

Ms. 1577, Loc. B, 5 at the Municipal Library of Oporto, Portugal, has been valuable in obtaining a better understanding of Portuguese organ music and the dissemination of Spanish works throughout the peninsula. This manuscript, titled the *Libro de cyfra adonde se contem varios jogos de versos, e obras, e outras coriosidades de various autores* (Book of tablature which contains various collections of verses, obras, and other curiosities, by various composers),<sup>213</sup> contains no information regarding the date of its compilation or the scribe responsible for the lengthy manuscript.<sup>214</sup> The *Libro de cyfra*, like many manuscripts of this time, is didactic in nature, containing theoretical information on how to write in *cifra* as well as instructions for proper organ technique and performance.

The beginning of the manuscript includes an index of the compositions.<sup>215</sup> The works can be divided into four categories: compositions nos. 1-24 are by Fr. Bermue de Olagué;<sup>216</sup> nos. 25-30 are *registros*, *obras*, and *versos* by five composers (no. 25 being by a Fr. Marinho García de Olagué, possibly a relative of Bermue); nos. 31 to 48 is comprised of *entradas* and miscellaneous dance pieces, some of which have no composer specified; and nos. 49-84, comprised of *registros*, *obras*, a *jogo de versos*, and a *batalha*. There appears to

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<sup>213</sup>As implied by the title, the manuscript is written in Spanish keyboard tablature, the same notation used by Venegas de Henestrosa and Correa de Arauxo, and not common in Portugal at the time. Though it has long been supposed that the system quickly fell out of use after Correa's *Facultad orgánica* of 1626, it appears to have been used intermittently well into the eighteenth century; this collection is an example of this phenomenon.

<sup>214</sup> Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 2.

<sup>215</sup> Ibid.

<sup>216</sup> Piece no. 17 does not state a composer but given its placement it is likely that it is also by Olagué.

be no specific ordering within these sections, though pieces by the same composer usually appear next to each other.

According to Hudson, the ordering of the entire collection has several implications. It is likely that the Olagué pieces were copied straight from another source of the composer's music. The miscellaneous pieces found in the second and fourth groupings were most likely copied to the manuscript arbitrarily and the remainder, nos. 49-83, shows enough structure that they too may have been taken from another source, though there is no evidence to support this.<sup>217</sup>

While there is no indication of who the copyist may have been, the manuscript does lend certain clues as to who might have been a likely candidate. It was discovered in Portugal, but the attributed pieces are by Spanish composers. The manuscript is written in Portuguese, but it is rife with adulterations and inconsistencies of the language (*cifra* in lieu of *cyfra*, etc.), many of which hint that the author may have been a native Spaniard, perhaps from Catalonia, Valencia, or Aragon because of the writing style and language.<sup>218</sup> The presence of compositions by Aguilera, Bruna, Durón, and a number of other Spaniards seems to support this supposition.

It is difficult to determine when the fully compiled manuscript was finished, though the presence of *minuets* (represented by nos. 80 and 83 in the collection, a form that did not flourish in Spain until well after the turn of the eighteenth century, and the inclusions of works by composers such as Sebastián Durón (c 1660-1716) and Joseph de Torres (1665-

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<sup>217</sup> Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 6.

<sup>218</sup> Ibid., 7-8.

1738) implies that it would most likely have been a product of the 1710s at the very earliest.<sup>219</sup>

The works of sixteen different composers are found within the pages of the *Libro de cyfra*. Though it includes works by many well-known Spanish composers (whose names are often written using a thoroughly Portuguese spelling), it also contains pieces by a number of lesser-known composers for which there is little to no surviving biographical information.<sup>220</sup> The following *medio registro* composers are represented in the *Libro de cyfra*: Aguilera de Heredia (two), Antonio Brocarte (two), Al. Cuevas (one), Pablo Bruna (one), Bartolomeu de Olagué (ten), Andrés de Sola (two), Miguel de Supuerta (one incomplete *registro* with the subtitle *toccata*), Sebastián Durón (two), and Joseph Torrelhas (nine).<sup>221</sup> Only the pieces of composers not found in previously-mentioned sources will be approached here.

Though the designation *tiento* is not found within the *Libro de cyfra*, the presence of analogous genres—*obras*, *registros*, and *batalhas*—is enough to legitimize the collection as one including a number of pieces within the *tiento de medio registro* genre, in style, if not in name. The *registros* featured in the collections are of three varieties. The first type is the *registro alto* (another name for the *medio registro de tiple*). Among eighteenth-century compositions of this type, it is the most represented type of *medio registro* in the collection. There are also several examples of the *medio registro de dos tiples*, five of which were the output of Joseph Torrelhas. The last of the three types of *registro* pieces, the *medio registro*

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<sup>219</sup> Ibid., 7.

<sup>220</sup> Ibid., 21.

<sup>221</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 140-141.

*de baxón*—found in this collection under the equivalent titles *registo baixo* and *registo de mão esquerda*—is represented by five pieces.<sup>222</sup>

The *tiento* compositions found in Ms. 1577 follow the basic characteristic of the seventeenth-century version of the genre, as typified by the works of Aguilera and Correa: each uses some varying amount of imitation alternating with sections of free, virtuosic material. Sections are either in duple or triple meter.<sup>223</sup>

Three *tientos*, including no. 53 by Aguilera de Heredia, contain an initial subject that appears in two voices at the same time.<sup>224</sup> Three other pieces—nos. 50, 63, and 72—are monothematic and include only one section. These are largely contrapuntal and depart from the usual stylistic tendencies of the late sixteenth or early seventeenth century Spanish *tiento*.<sup>225</sup> The majority of monothematic works in the manuscript contain two or more different sections, usually with meter changes in each section.

Bertolomeu de Olagué

It is unclear as to whether Bertolomeu de Olagué (*d* 1658) was of Spanish or Portuguese origin, though his name suggests he may have been a native of the Basque region of Spain. While details of his life are sparse, it is known that in June of 1644 he was

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<sup>222</sup> Ibid., 54-55.

<sup>223</sup> Ibid., 56-57.

<sup>224</sup> Ibid., 60.

<sup>225</sup> Ibid., 63.

appointed as the *maestro de capilla* at Burgos Cathedral and, in March 1651, he was hired as a musician of the same standing at the Cathedral of Santiago de Compostela.<sup>226</sup>

Twenty-four of Olagué's organ pieces exist. Of these, eleven are *tientos* found under the title *obra* or *registro*. Of the ten works for *registro partido* are one piece for *dos triples*, seven pieces for *registro alto*, and two pieces entitled *registro baixo*. The remaining pieces include *entradas*, *versos*, hymn tunes, a *jácara*, a *tonada*, and a *canção*.<sup>227</sup>

Olagué's pieces for *registro partidos* are captivating for a number of reasons. While many of the composer's works appear to be firmly rooted in the styles of an earlier time, pieces such as the *Registro alto de dois triples* show a combination of Renaissance and Baroque techniques. There is a lightness to the piece provided by a quarter-note subjects and the fact that there is no difference in texture between so-called contrapuntal sections and figurative sections, as is exhibited by the opening measures of the *tiento* in Examples 4-50 and 4-51. The entrance of the solo upper voice mirrors the initial thematic material, making it virtually indistinguishable from a *tiento lleno* composition.

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<sup>226</sup> Barton Hudson, "Olagué, Bertolomeu de," *Grove Music Online* (accessed 8 November 2012) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/50099>>.

<sup>227</sup> Though Hudson has transcribed all of Olagué's organ works from the original manuscripts, only one has appeared in a modern published edition. It can be found in: M.S. Kastner, ed.: *Silva ibérica de música para tecla de los siglos XVI, XVII y XVIII* (Mainz, 1954), i. Barton Hudson, "Olagué, Bertolomeu de," *Grove Music Online* (accessed 8 November 2012) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/50099>.

Example 4-50. Bertolomeu de Olagué, *Registo alto de dois tipples*, mm. 1-5.<sup>228</sup>



Example 4-51. Bertolomeu de Olagué, *Registo alto de dois tipples*, mm. 11-15.<sup>229</sup>



Olagué's counterpoint is generally simplistic and many of the *tientos*, including the *Registo alto de dois tipples*, alternate between three and four parts. The above *tiento* is particularly interesting in that the two solo lines are often accompanied by only a whole note or half notes in the bass voice. In addition, Olagué's *tientos* sometimes contain more than one section, but the typical duple-triple construct does not apply; indeed, many, including the *Registo alto de 1° tono*, begins in ternary meter. Other *tientos*, including the *Registo alto de 8° tono, airozo*, have unusual subjects consisting of disjunct melodic lines or repeated notes, such as the opening of the *Registo alto de 8° tono* (Example 4-52 below). Olagué employs repeated notes in mm. 1-2, continuing the presentation of the thematic

<sup>228</sup> Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 107.

<sup>229</sup> Ibid.



material in the upper voice while simultaneously rendering a slightly modified version in the lower voice, creating parallel motion that is unusual in *medio registro* pieces). The composition, and others by Olagué, is also attractive due to the inclusion of accidentals that would no doubt have sounded very intriguing on organs utilizing early tuning systems such as meantone (see Example 4-53).

Example 4-52. Bertolomeu de Olagué, *Registo alto de 8° tono, airozo*, mm. 1-3.<sup>230</sup>



Example 4-53. Bertolomeu de Olagué, *Registo alto de 3° tono*, mm. 1-5.<sup>231</sup>



Overall, Olagué's writing style appears unsophisticated; yet, each of his compositions contains elements that elicit a certain charm and individuality. While adhering to the general formal structure of the *tiento* of his time, he is able to break out of

<sup>230</sup> Ibid., 193.

<sup>231</sup> Ibid., 199.

the mold and produce compositions that are shining examples of the possibilities of the genre and the divided keyboard.

### Joseph Torrelhas

Joseph Torrelhas, a native Spaniard, was active around the turn of the eighteenth century, though little is known of his life and career. The only surviving pieces by the composer are found in the *Libro de cyfra*;<sup>232</sup> these include three variation sets entitled *canções* (the Portuguese equivalent of the Spanish *canción*), one *batalla*, and ten *tientos*—nine of which are *medio registro* and bear the following titles:<sup>233</sup>

1. *Registo de dois tiples de 7° tom por E*
2. *Registo baixo de 1° tom*
3. *Registo de dois tiples de 1° tom*
4. *Registo alto de 1° tom*
5. *Registo alto de dois tiples de 4° tom*
6. *Registo alto de 1° tom*
7. *Registo alto de 8° tom de dois tiples*
8. *Registo de 6° tom de dois tiples*
9. *Registo alto de 8° tom*

As shown above, Torrelhas experimented with three of the four types of *medio registro* pieces, excluding compositions containing two bass solos. Torrelhas's *tientos* are rather orthodox; sequences are rife throughout the compositions and strings of suspensions (similar to the *de falsas*, appearing in many of the nine *tientos*) create an intriguing interplay between upper and lower voices.

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<sup>232</sup> Barton Hudson, "Torrelhas, Joseph," *Grove Music Online* (accessed 7 November 2012, <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/28182>).

<sup>233</sup> Apel, *Keyboard Music Before 1700*, 777.

Of the pieces contained in the *Libro de cyfra*, the *Registo alto de 8° tom de dois tiples* is noteworthy not because it is multisectional in the typical way, as defined by sections in different meters, though Torrelhas does, in fact, use both duple and triple meter in the piece, but rather, because it is more thoroughly defined by its use of a number of different themes that are developed in the figural sections. Example 4-54 shows the initial presentation of the theme, first in the bass (m. 1), followed by entrances in the alto (m. 4) and tenor (m. 6). The soprano enters in m.12 (not pictured). A clear D-major cadence in m. 19 brings the first contrapuntal section to a close and immediately the alto line assumes a solo function, followed in m. 21 by the soprano (Example 4-55). It is clear that the thematic material in the contrapuntal and figurative sections are unrelated, a fact that makes for almost constant melodic interest, but little cohesiveness between one section and the next.

Example 4-54. Joseph Torrelhas, *Registo alto de 8° tom de dois tiples*, mm. 1-8.<sup>234</sup>



<sup>234</sup> Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 559.

Example 4-55. Joseph Torrelhas, *Registo alto de 8° tom de dois tipes*, mm. 15-23.<sup>235</sup>



The *Registo alto de 8° tom* differs in several ways from the *dois tipes* piece mentioned above. Much shorter in length—137 measures in comparison to the 228 measures of the multisectional *dois tipes* piece—this piece is a tightly-knit composition comprised of only one section. Though it too is polythematic, with new themes being presented at the beginning of new contrapuntal or ornamented sections, the material is often derived from the primary theme (Example 4-56 below). Though this material is transformed throughout the piece, Torrelhas recurrently preserves the dotted half-quarter pattern. Such a passage is seen in Example 4-57, where the composer juxtaposes the dotted rhythm with a string of suspensions found in the bass and tenor voices. Also of note is the pervasive use of leading tones, applied not only to cadential sections, but also as part of the transformed themes, similar to the half-note tenor line found in m. 7.

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<sup>235</sup> Ibid.

Example 4-56. Joseph Torrelhas, *Registo alto de 8° tom*, mm. 1-7.<sup>236</sup>



Example 4-57. Joseph Torrelhas, *Registo alto de 8° tom*, mm. 21-26.<sup>237</sup>



The composer's *Registo de 6° tom de dois tiples* reflects a more adventurous, *batalla*-inspired part of the composer's output. It is reminiscent of the *Batalha de 6° tom* by the same composer, which is also found in the collection. The usual scalar and sequential figuration accompanies passages of dotted eighth-note material and unusual left-hand syncopations, as can be seen in material of the last of three sections (Example 4-58 below); echo-like sections that would only be enhanced by the use of reed or *llo* stops in the solo lines; lines comprised of thirds; and frequent leaps of a fourth or more, creating a bombastic quality not found in the previous piece. So significant are the overall changes to

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<sup>236</sup> Ibid., 574.

<sup>237</sup> Ibid.

texture and character that it is almost difficult to believe that the piece was written by the same composer.

Example 4-58. Joseph Torrelhas, *Registo de 6° tom de dois tiples*, mm. 151-155.<sup>238</sup>



The nine *registo* pieces of Torrelhas found in this collection and, indeed, the only extant works by the composer, show great diversity in style and form; it is fortunate that the scribe of the manuscript chose to include so many of his works.

#### Andrés de Sola

Andrés de Sola (1634-1696) spent essentially his entire career at La Seo in Zaragoza, arriving there as early as 1654 to become an assistant to his uncle and then-principal organist, José Ximénez; it is probable that Andrés continued his musical education as one of Andrés's pupils.<sup>239</sup> He was promoted to second organist in 1664 and principal

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<sup>238</sup> Ibid., 573.

<sup>239</sup> López-Calo, *Historica de la música española*, 153.

organist in 1672. He remained in this position until his death, despite receiving other offers of employment.<sup>240</sup>

Sola's extant output of organ music consists of 28 *versos* and three *tientos*.<sup>241</sup> Of the latter, one is of the *de falsas* variety based on a *tiento* by Aguilera de Heredia. The other two are *registro alto* compositions. In all three *tientos* de Sola utilizes the basic structure and characteristics of this time, with a few creative exceptions.<sup>242</sup>

The *Registro alto de 1° tom* is a multisectional work that is striking because of the highly syncopated second section, which presents a new theme (Example 4-59 below).

Example 4-59. Andrés de Sola, *Registro alto de 1° tom*, mm. 54-57.<sup>243</sup>



The disjointed thematic material and the often-dotted figuration that follows create a marked contrast with the typical scalar and sequential material that characterizes the

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<sup>240</sup> Barton Hudson, "Sola, Andrés de," *Grove Music Online* (accessed 8 November 2012) <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/26125>.

<sup>241</sup> Both *tientos* and *versos* are published in: L. Siemens Hernández, ed., *La escuela de órgano de La Seo de Zaragoza en el siglo XVII: Andrés de Sola y Jerónimo Latorre, versos para órgano* (Zaragoza, 1988), and *La escuela de órgano de Zaragoza en el siglo XVII, Orgue et Liturgie*, lxxiv (Paris, 1967).

<sup>242</sup> López-Calo, *Historia de la música española*, 153.

<sup>243</sup> Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 418.

preceding musical material. Towards the conclusion of the piece de Sola is able to combine aspects of both sections to provide a certain unity to the overall composition.<sup>244</sup>

The *Registo alto de 1° tom* is characterized by its polythematic nature and its two sections that contain greatly differing thematic material. While the first section (in duple meter) presents a stepwise subject, the second (in triple meter) includes new material that is characterized by leaps at intervals of fourths and fifths. This portion, beginning in m. 30, comprises a majority of the 208-measure composition, repeating the thematic material, usually accompanied by a single bass note or a bass and tenor to an almost excessive degree! De Sola occasionally utilizes hemiola or rests to break the otherwise monotonous texture.

Al. Cuevas and Miguel de Sopena

Two other virtually-unknown composers, Al. Cuevas and Miguel de Sopena, are represented by *medio registro* pieces in the *Libro de cyfra*. Sopena's *Registo alto de 4° tom* is a polythematic *tiento* that is not especially remarkable. It utilizes sequential and scalar figuration throughout much of the piece. Dotted rhythms beginning in m. 45 add interest and forward motion, foreshadowing a syncopated and dance-like second section in triple meter.

The *Registo de 2° tom* of Al. Cuevas, designated a *tocata*, is incomplete; Hudson has transcribed the 92 extant measures. The piece is written for soprano solo and begins with a dotted-rhythm subject consisting mostly of quarter notes. Despite the *tocata* label, the

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<sup>244</sup> For a complete transcription of both of de Sola's *Registo alto* pieces, see Hudson, "A Portuguese Source of Seventeenth-Century Iberian Organ Music," 415-426.



piece is far from virtuosic and the figuration utilizes mostly quarter and eighth notes in descending lines, often with several repeated notes. The composition is polythematic and the extant material does not include meter changes, though the presence of a second section in triple meter is certainly possible given the incomplete nature of the piece.

### Other Portuguese Sources

In addition to the *Libro de cyfra* there are currently six other important Portuguese sources of organ music that have been identified. Most of these manuscripts consist of music by both Portuguese and Spanish composers. They include the following:

1. Coimbra, University Library, Ms. Mus. No. 48
2. Coimbra, University Library, Ms. Mus. No. 242.
3. Lisbon, Ajuda Library, *Apêndice de Ajuda* (Appendix added to the copy of Francisco Correa de Arauxo's *Facultad orgánica* at the Ajuda Royal Library).
4. Manoel Rodrigues Coelho, *Flores de música* (Lisbon, 1620).
5. Oporto, Municipal Library, *Tenção de Joao da Costa de Lisboa*.
6. Oporto, Municipal Library, *Liuro de obras de orgao juntas pella coriosidade do p. P. Fr. Rogue do Coceicao. Anno de 1695*. Ms., No. 1607, Loc. F, 7.

The two sources residing at the Coimbra University Library (nos. 1 and 2 in the above list) stem from the sixteenth century. Ms. Mus. No. 48 includes one *tiento*—the *Tento de meyo registro, outavo tom natural* (fol. 66)—by the Portuguese composer Dom Gabriel (Gabriel de São João), as well as a *tiento* by the Spaniard Francisco de Soto. Unlike many other collections of the sixteenth century, Ms. Mus. No. 48 is copied in *partitura* notation, with each voice written on a separate staff.<sup>245</sup>

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<sup>245</sup> Merino, "The Keyboard Tiento in Spain and Portugal," 114-115.

Dom Gabriel is represented by only a few extant works, many of which are assumed to appear in autograph. The composer is known to have been present at the Augustinian monastery of Santa Cruz in Coimbra in the 1620s; in 1624, he was sent to the monastery of San Vincente de Fora in Lisbon to fulfill the role of keyboardist there. He died in December of 1651 and was lauded in his obituary as a “most skilled master in the whole art of music.”<sup>246</sup> Despite this high praise, Dom Gabriel’s music, including several vocal works and pieces for instrumental consort, has not been studied in detail because of the limited surviving works and their inaccessibility. Without a better understanding of the composer’s overall corpus it is difficult to decipher what role the *medio registo* (or the *tiento* in general) played in his compositional output, but is it very possible that Dom Gabriel was just one of many Portuguese composers who dabbled with the genre.

The second Coimbra source, Ms. Mus. No. 242, contains numerous *tientos* by both Portuguese and Spanish composers. Of these, five are by the master Cabezón, 18 are without attribution, one is the work of Antonio de Macedo, three of Dom Heliodoro (Heliodoro de Paiva), and 16 by Antonio Carreira. This manuscript is important because of the variety of composers represented. The third source, an appendix found with the Lisbon copy of *Facultad orgánica* contains compositions by both Spanish and Portuguese composers, as stated above. The source includes two *tientos* by the Portuguese composer Diogo de Alvarado, and one each by Estacio de la Serna and Peraza.<sup>247</sup> Source no. 5, the *Tencao de Joao da Costa de Lisboa*, dates from the middle of the seventeenth century.

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<sup>246</sup> Owen Rees, "São João, Gabriel de," *Grove Music Online* (accessed 11 January 2015) <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/41438>>.

<sup>247</sup> Merino, “The Keyboard Tiento in Spain and Portugal,” 116.

However, the manuscript, while containing *tientos*, does not include any *medio registro* works. The final source, the *Liuro de obras de orgao juntas pella coriosidade do p. P. Fr. Rogue do Coceicao* held at the Municipal Library in Oporto, Portugal, is important because it includes music by Portuguese composers. Written in partitura notation, the manuscript is comprised of pieces by the following composers: Pedro de Araujo (two *tentos*), D. Agostinho (one *tento*), Diego de Conceycao (one *meyo registro*), Joseph Leyte da Costa (one *tento*), and Fr. Carlos de S. Joseph (one *tento*).<sup>248</sup>

From surveying the above manuscripts one can come to one of two possible conclusions. Portuguese composers eventually became interested (though more slowly than their Spanish counterparts) in the *registro partido* and *tiento de medio registro*, but many of their compositions were destroyed by unfortunate circumstances. On the other hand, it is possible that the technique was adopted sparingly and only a few composers experimented with the genre. Most likely, the answer lies between the two; while Portuguese organ manuscripts and publications are exceedingly sparse and it is conceivable that a majority of sources have been lost over time, it is simultaneously unlikely that Portuguese composers espoused the form with the same vigor as the Spanish.<sup>249</sup>

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<sup>248</sup> Ibid., 133-134. Of these Portuguese composers, little biographical and stylistic information is known regarding most of them. Pedro de Araujo, whose music appears in others manuscripts and D. Agostinho da Cruz are perhaps the most well-known, though facts regarding their lives are also sparse.

<sup>249</sup> If well-executed, modern-day editions of Spanish organ music are few and far between, this is even more the case with Portuguese editions. One notable collection feature the works of the late-seventeenth century composer Roque da Conceição, featured in Klaus Speer, ed., *Portugaliae Música*, vol. 11 (Lisbon: Fundação Calouste Gulbenkian, 1967). This volume is based on Roque da Conceição's original 1695 manuscript and contains a number of *versos*, *tentos*, *batalhas*, and other miscellaneous compositions. With the exception of several pieces that the author attributes to other composers (including Pedro de Araujo and Antonio Braga, among others), most works appear to be by Conceição himself.

## The *Tiento de medio registro* in the New World

Given the close association between organ building trends in Spain and the New World in the sixteenth through eighteenth centuries, it is logical that musicians in these colonial areas were also well versed in the compositional trends of the Iberian Peninsula.

Organ music by many of Spain's most notable composers has been found in the New World. Archives at Mexico City Cathedral contain works by Cabezón, Correa de Aruaxo, Aguilera de Heredia, Cabanilles, and others. It is known that composers in Mexican and some South American countries were well-acquainted with the Spanish compositional style of the age and that many composers from these colonies produced works of high quality. In addition, many New World organs contained *registros partidos*. Despite these facts, there is, rather incredibly, no evidence of a native *tiento de medio registro* tradition.<sup>250</sup>

### Summary

The *tiento de medio registro* would undergo various changes from its inception in the last half of the sixteenth century to its eventual decline in the first half of the eighteenth. The rise of the *registro partido* brought about this new genre, which could only be properly played on such an instrument. Though it would take until the publication of Correa de Arauxo's *Facultad orgánica* in 1626 for the *tiento de medio registro* to reach its full potential as a mature genre, reflecting the overwhelming popularity of the *registro partido* as a common inclusion in the Spanish organ, those of Aguilera de Heredia, Bruna, and other

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<sup>250</sup> Pamela H. Long, "How the Décima Musa Composed, Practiced, and Imagined Music," *Ibérica* 39 (New York, Peter Lang), 8.

early seventeenth-century composers changed the focus of the genre from the contrapuntal writing of Cabezón's generation to a highly virtuosic genre largely defined by the creativity and floridness of its figuration. It is likely that the genre's flamboyance and its ability to utilize a variety of registrational combinations led to its extensive popularity.

The genre continued to expand in size and scope and lost its standard formal structure in successive generations of composers. Though the genre figured prominently in the output of Cabanilles, Martín y Coll, Elías, and several of the most significant Spanish and Portuguese composers of the latter half of the seventeenth century, it was seemingly never adopted with any great enthusiasm by New World composers. Eventually, new genres such as the keyboard sonata would take the place of the *tiento* and the genre gradually disappeared from the works of Iberian composers.

## Chapter 5

### Modern-Day Performance of Spanish Organ Literature: Registration

#### **Fundamentals and Approaches**

After centuries of neglect and, often, a certain level of mistreatment, the Spanish organ repertoire of the sixteenth through eighteenth centuries is starting to become better known, and historical knowledge of the repertory and its performance practices are improving. Nonetheless, the modern organist who wishes to attempt a convincing interpretation of this music faces a variety of musical, logistical, and interpretative issues—not the least of which are problems arising in “registering” this repertoire, particularly on current instruments. As a result, an understanding of Spanish organ construction and specifications, as well as detailed knowledge of registration techniques and combinations, is needed in order to achieve an historically-informed performance of this music.

It is difficult to provide a comprehensive account of registration practices during the Spanish Renaissance and Baroque, given the breadth and, frequently, the vagueness or inaccessibility of extant sources. Though many composers and theorists wrote about the compositional and performance practices of this music, including registration, they tend to assume a certain level of understanding of contemporary methods. This causes problems for the modern-day organist, given that traditions varied greatly based on time period, geographical location, and individual composers. One, however, is able to piece together

certain conventions from the documents by many composers and organ builders to form general guidelines regarding the proper registrational practices of this music.<sup>1</sup>

Several performative and historical aspects must be considered when approaching the registration of this literature. First, one needs knowledge of the Spanish instruments: their peculiarities, specifications, and distinctive capabilities. It is imperative that one has a firm understanding of the general construction of the Spanish organ and the stops that would have been available to most composers and performers during the Spanish Baroque. Though knowledge of the historical and chronological developments of these organs, as well as examples of representative stoplists, will no doubt aid in this understanding, variances in nomenclature and discrepancies in spelling and vocabulary can make approaching problems of registration seem overwhelming at times. For this reason, it will be helpful to consider the typical Spanish organ at its most basic level, providing an outline of the wide variety of possible stops that can be found in these instruments. Subsequently, it is important to comprehend the registrational capabilities of such organs and the combinations that historically would have been used. To this end, it is helpful to refer to important composers, theorists, and organ builders who documented the specifications of the organs with which they worked, as well as provided potential stop combinations for various compositional genres, including the *tiento de medio registro*.

For those who are unfamiliar with Spanish organ nomenclature, it will be useful to divide the organ stops into “families” similar to the more recognizable groupings of French,

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<sup>1</sup> Those who wish to gain a greater understanding of other aspects of performance practice—tempo, ornamentation, fingering, etc.—are urged to consult Calvert Johnson, *Historical Organ Techniques and Repertoire, vol. 1: Spain, 1550-1830* (Boston: Wayne Leupold Editions, 1994). Though not exhaustive, the book provides an overview of various components of this repertoire and cites treatises and other historical documents for further investigation.

English, or German organ specifications. Not unlike these instruments, most Spanish Baroque instruments have two categories of stops, divided into various subcategories. Consistent with other schools of organ building, the first family consists of flues—principals, flutes, strings,<sup>2</sup> and hybrid stops<sup>3</sup>—and the second family is comprised of reeds.

The *órgano mayor*, the great manual of most Spanish instruments, is made up of a *lleno* or chorus, based on a 16' or 8' open principal.<sup>4</sup> The *lleno*, comprised primarily of principals, is often made up of the following (or other analogous) stops: *flautado* (8' principal), *octava* (4' principal), *docena* (2 2/3'), *quincena* (2' principal), *diecisetena* (1 3/5'), *diecinovena* (1 1/3'), *lleno* (the primary mixture stop, of which there can be more than one on some instruments), *címbala* (high-pitched mixture similar to the French *cymbale* or North German *Scharf*, also found under the names *zímbala* or *simbala*), and *sobrecímbala* (sharp mixture).<sup>5</sup> In some cases the ranks may be combined; for example, the *quincena* and *diecinovena* are often combined into one compound stop in the treble half of

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<sup>2</sup> String stops have largely been omitted from this document as they did not become prevalent in Spanish organs until the nineteenth century. The player should note that common stop names such as *violón* or *flautado violón* (usually a stopped flute or diapason, generally comparable in tone to a mild principal), and *violeta* (horizontal *regal*) are not string stops.

<sup>3</sup> Hybrid stops are those that are scaled in between strings and flutes; an example of such a stop is the *quintadena*.

<sup>4</sup> Before the turn of the seventeenth century the principal chorus was usually termed the *plé*, which more generally referred to the chorus; from the seventeenth century onwards, the chorus was more frequently referred to as the *lleno*, which referenced the main mixture of the same name. Though it is uncommon, one will occasionally see a *tiento lleno* (also called a *tiento entero*) entitled *tiento de plé* or *tiento plé*.

<sup>5</sup> Though these and other stops are discussed and further defined in other chapters of this document, for a quick, more detailed look at the construction or sound of these pipes, see the online *Encyclopedia of Organ Stops* at [http://www.organstops.org/t/\\_IndexN.html](http://www.organstops.org/t/_IndexN.html). Classic stop dictionaries include: George Ashdown Audsley, *Organ Stops and Their Artistic Registrations: Names, Forms, Constructions, Tonalities, and Offices in Scientific Combination* (New York: H.W. Gray Co., 1925) or S. Irwin, ed., *The Dictionary of Pipe Organ Stops* (New York: Schirmer, 1962). For information pertaining specifically to the Spanish organ, its nomenclature, and stop qualities see: Joaquín Saura Buil, *Diccionario técnico-histórico del órgano de España* (Barcelona: Consejo Superior de Investigaciones Científicas, 2001).



the keyboard. Depending on the size of the instrument, the *lleno* may consist of any number of the stops listed above. The concept of the *lleno* as a chorus should not be confused with *lleno* registrations, which can come in a multitude of different guises and often included reeds such as the *trompeta real* (to be discussed later). The *lleno*, like the principal chorus in most other countries, is the cornerstone of Spanish organ registration and can be used in pieces entitled *lleno*, as well as in an assortment of other constructs and figurations in *medio registros*, other sub-genres of the *tiento* (*ensaladas*, *batallas*, etc.), and various other genres, both sacred and secular.

In addition to the principal chorus, organs could also contain any number of flute stops. This was largely dependent on the size of the organ, but most contained at least one flute chorus comprised of flute stops at the 8', 4', and 2' pitches. Common Iberian flute stops included the 8' *flauta*<sup>6</sup> and the 4' *tapadillo*,<sup>7</sup> a stopped flute.

The second family consists of reeds, which can be divided into two sub-categories: interior and exterior. These categories could then be further distinguished by whether or not they had full-, half-, or quarter-length resonators. Interior trumpets, such as the *trompeta real* (8' trumpet) or *clarín real* (4' trumpet)<sup>8</sup> could be used either as solo stops—

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<sup>6</sup> The *flauta* should not be confused with the diapason *flauto* or *flautado* that is found on some Iberian instruments. One should be careful when studying specification lists as it seems that Spanish organ builders and composers did not always feel the need to carefully differentiate between flute and principal stops, as a number of erroneous or ambiguous spellings can be found in various manuscripts. In addition, one should note that the *flauta* (when referring to the flute stop) can appear in a variety of different guises, including the *flauta Euskeria* ("Basque" flute) and the *flauta armónica* (harmonic flute).

<sup>7</sup> Like the *flauta*, the *tapadillo* can also appear under myriad other names, including: *violón* (also a stopped flute that is present on many Spanish instruments), *flauta tapada*, *flauta tapado*, and *octava tapada*. The designation *flautado tapado* can signify either an 8' or a 4' flute.

<sup>8</sup> The designation *trompeta real* probably means "real" trumpet, in lieu of the translation "royal" trumpet (which became popular by the mid-eighteenth century), in order to differentiate the full-length *trompeta real* from *regales* and other half- or quarter-length reeds.

though upon their advent horizontal trumpets become more apt for this usage—or as a part of the *lleno* registration.

By the last quarter of the seventeenth century, horizontal reeds, many of which were divided, had become commonplace inclusions in new instruments and were frequently installed in preexisting organs.<sup>9</sup> Common names for Spanish *en chamades* with full-length resonators include the following: in the bass, 8' *clarín bajo* (bass clarion) and 4' *bajoncillo* (small bassoon); and in the treble, 16' *trompeta magna* (grand trumpet) or *trompeta de batalla* (battle trumpet at 8' pitch) and 8' *clarín* or *clarín real* (clarion).<sup>10</sup> The other sub-category consisted of horizontal reeds with half- or quarter-length resonators. Such stops include: in the bass, the 4' *bajon* or *bajoncillo* (bassoon) and the 2' *violeta* or *chirimía* (shawm); and, in the treble, the *oboe* and the *clarinete* (both found at either the 8' or 4' pitch). The *trompeta bastarda* (denoting a “cannon” trumpet) is a half-length reed that could be located in the bass or the treble and could be found at the 8', 4' or 2' pitch.<sup>11</sup>

The aforementioned reed stops are exemplary of those found in many Spanish organs of the Baroque, though by the time horizontal reeds and the *medio registro* had become popular in the seventeenth century, it was common for larger-scale organs to include a wide assortment of reeds. Indeed, as the reed chorus and the solo horizontal reed became two of the most representative aspects of the Spanish pipe organ, most divided-register organs often had 8', 4', and 2' horizontal reeds in the bass, and 16', 8', and 4'

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<sup>9</sup> Douglas E. Bush and Richard Kassel, eds., *The Organ: An Encyclopedia* (New York: Routledge, 2006), 160.

<sup>10</sup> After the introduction of horizontal reeds in the second half of the seventeenth century, both *trompeta real* and *clarín real* could refer to either an interior vertical reed or an exterior horizontal reed.

<sup>11</sup> <http://www.organstops.org/t/TrompetaBastarda.html> (accessed 10 January 2014).

horizontal reeds in the treble.<sup>12</sup> Organs may have also possessed any number of *regales*,<sup>13</sup> ranks of smaller reeds with short-length resonators, located directly above the organist's head, which were harsher and more nasal in sound; these reeds were usually accompanimental in nature.

Given the importance of Spanish reeds, it is perhaps this grouping that shows the most variance, as demonstrated above. However, in addition to reeds, a wide variety of other chorus, solo, and auxiliary stops can be found in many instruments; a majority of these stops were also divided, allowing for their use in *medio registro* pieces. An example of a common solo stop is the 8' *corneta*, a mutation stop usually found in the treble that generally consisted of five or more ranks.<sup>14</sup> The *corneta* was elegantly voiced and seemingly bears little resemblance to the French *cornet* of the same time period. The organs could also have a variety of interior, chorus reeds, and solo and accompanimental flute stops, in addition to any number of toy stops such as a *tambor* (imitative of a kettle drum, consisting of two or more stopped wooden pipes tuned at the fifth) or other drums (*timpala* or *timbal*), *campanas*, *campanitas*, or *cascabeles* (bells), and *pájaros* or *pájaritos*

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<sup>12</sup> Jon Burnett Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica': A Translation and Study of its Theoretical and Pedagogical Aspects," (D.M.A. diss., University of Oregon, 1985), 113-115. It should be noted that the treble reed chorus is often based on the 16' pitch. This helped to offset the fact that treble reeds of this time were weaker than bass reeds.

<sup>13</sup> Barbara Owen, *The Registration of Baroque Organ Music* (Bloomington: Indiana University Press, 1997), 62. It is likely that in some organs these *regals* would have had a separate chest and manual (a sort of Spanish *Brustwerk*).

<sup>14</sup> Peter Williams, *The European Organ: 1450-1850* (London: Batsford, 1996), Glossary: "Cornet." The Spanish *corneta* is sometimes found in stoplists as a *tolosana*. Williams states that this is because the stop was imported to Spain from Toulouse, France c 1620. Unlike *cornets* from France, England and Germany, however, which were often wide-scaled, lead pipes of three to five ranks, the Spanish *corneta* was narrow-scaled and often under expression.

(bird calls), the latter of which will seldom be available to the modern-day performer, except on the rare historically-modeled instrument.<sup>15</sup>

The stops referenced above are in no way exhaustive, and even a cursory glance at specification lists from the Spanish Baroque will show almost limitless possibilities depending on the size and scale of the individual instrument, as well as the origins and stylistic traits of the organ builder. In addition, as no standardized spelling for organ nomenclature (or much else, for that matter) existed at that time, for the many possible stops there are almost again as many conceivable spellings and deviations from the most common terminology. The modern-day performer is advised to study a wide selection of specification lists in conjunction with an organ stop dictionary to understand the vast array of possibilities available on these instruments and the different names of these stops. Expanding one's knowledge will increase comprehension of the registrational capabilities of these great instruments. Once the modern-day performer is familiar with the stops available to the average Spanish organist or composer, one must then go a step further and establish some basic rules of stop combinations before delving into the finer subtleties of Spanish registration practices.

One of the rudimentary guidelines when approaching this repertoire is to put the style of the literature into an historical context. Though perhaps obvious, it should be noted

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<sup>15</sup> Though relatively few historic Iberian organs are to be found in the United States, there are several historically-modeled Spanish instruments found in various churches and institutions around the country. The Greg Harrold Opus 11 (1988) instrument in the Pacific Lutheran Theological Seminary Chapel at the University of California, Berkeley, is modeled after an instrument, c 1700-1730, from Zaragoza. The 16-stop organ contains both a short octave and *medio registros*; the complete specification can be found here: <ftp://ftp.wu-wien.ac.at/pub/earlym-l/organs/harrold.univ-cal-pacific-luth.berkeley.ca.us.1988>. Two other such organs include the Manuel Rosales Opus 14 (1989) located at the San José Mission in Fremont, California (<http://rosales.com/instruments/op14/index.htm>) and a Patrick Collon (of Manufacture d'Orgues de Bruxelles) instrument in the St. Patrick Chapel at John Carroll University in University Heights, Ohio (<http://sites.jcu.edu/music/home/liturgical-and-sacred-music-2/mellen-organ/>).

that the orchestral combinations available to most modern-day organists should be avoided. To this end, another common mistake in today's registration of Spanish Baroque music is to combine horizontal reeds—which primarily functioned as solo stops—with the *lleno*. This, of course, would not have been a possible combination before the end of the seventeenth century and, though a few eighteenth-century documents allude to this practice, it was most likely a rare procedure and, for most, doing so would have been considered to be in bad taste. In the case of *medio registro* pieces, this combination would have likely created an uneven balance between the *lleno* solo and the accompaniment.<sup>16</sup>

While Romantic and orchestral-sounding registrations should be avoided, there are some situations where the combining of stop groupings is, out of necessity, both possible and advisable. One example of this would be the use of “support stops.” For instance, the use of an 8' (or, on occasion, 4') flute or principal stop can provide a stable foundation for a solo horizontal trumpet or horizontal trumpet chorus. The addition of these support stops<sup>17</sup> would help give the impression that the speech of the solo stop was prompt and provide additional body and *gravitas* to the overall registration. This can be found in almost all of the registrational indications found below. In an historical context, the use of support stops during the Spanish Baroque helped fulfill the Spanish desire for agility, virtuosity, and clarity of texture.

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<sup>16</sup> This combination on modern-day instruments would most likely also be unbalanced, but would, otherwise, probably not have any negative effects. However, despite the relatively stable wind pressure of split keyboard instruments, the combination of the *lleno* and large, horizontal reeds would most likely have caused tuning and wind supply issues.

<sup>17</sup> This technique is not limited to the Spanish repertoire. The use of support stops is common in both historic and contemporary organ literature; this is particularly true of the French Classic repertoire with which the Spanish literature shares many similarities.

Perhaps one of the most important considerations when registering this literature is the use of reed stops, as many modern-day instruments do not have reeds that even closely resemble the nasal, bright reeds that would have been found in the Spanish instruments mentioned in this study.<sup>18</sup> One should be warned against the use of heavy German Romantic reeds. Conversely, German Baroque reeds are well-suited to this literature. French-style reed stops—particularly those that would be employed for French Classic repertoire, such as the *bombarde*, *trompette*, *clarion*, etc.—are often quite effective, as they are more buoyant and brilliant. The pitch base employed will depend on the style of reed and the individual organ, but it is possible to base the solo combination on 16', 8', or 4' pitches as long as a suitably balanced accompaniment, most often a principal chorus, can be achieved. When choosing trumpets or other reeds for use in a chorus (for instance, for a boisterous *lleno* piece), the reeds should blend into the chorus without overwhelming it.<sup>19</sup>

As an extension of the basic guidelines regarding reeds, it should be noted that many of these concepts may be applied more generally. Just as reeds that are extremely heavy or abrasive should be avoided, so too should flue stops that are overly loud or garish. The *lleno* should be balanced and mutations and mixtures should be bright, without being excessively raucous. Owen warns that players should be particularly wary when

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<sup>18</sup> The exceptions, of course, are the few modern instruments built to mirror their Spanish ancestors, or instruments that contain *en chamades* designed specifically for this literature and voiced in the proper way. Though historical reproductions of Iberian-style instruments are rare there has been renewed interest (albeit mostly in Spain) in producing such instruments in recent years. In addition to the instruments found in the United States that are listed above, another example can be seen in the work of Joaquín Lois Cabello and his Valladolid-based organ building team. Cabello and his team have been responsible for constructing historically-modeled instruments, as well as doing renovations of several important organs throughout Spain and Portugal. For information on the workshop, renovation guidelines, and past projects, see: <http://www.joaquinlois.com/index.php?idioma=en> (accessed 26 December 2013). For material on the process of reproducing a historically-modeled instruments, see: [http://www.proyectoclarin.com/001\\_Proyecto\\_Clarin.php?idioma=ESP](http://www.proyectoclarin.com/001_Proyecto_Clarin.php?idioma=ESP) (accessed 26 December 2013).

<sup>19</sup> Owen, *The Registration of Baroque Organ Music*, 134.

performing the Spanish repertoire on organs built during the first half of the twentieth century, as these instruments are likely to show a propensity toward weighty, Romantic-style principals and orchestral stops.<sup>20</sup> In modern instruments where aggressive or poorly-voiced stops can be all too common, one can simply avoid these stops or, alternatively, experiment with gapped registrations to help balance combinations and create a well-composed sound.

In practice, these rudimentary principals of registration can help the performer to make informed choices about what possible stop combinations will work for a given piece; however, these recommendations must be accompanied by knowledge of what works well on a specific instrument, and the player should remember that they are only cursory parameters and not rules. Once one gains a basic understanding of the tonal resources available to the typical Spanish organist or composer, one must use careful discernment to choose combinations that are successful and in good taste.

Before delving into more complex registrations, it is perhaps worthwhile to mention a few logistical issues that arise in the present-day performance of the Spanish Baroque literature, because successful execution of *tientos*, in general, and *medio registro* pieces, in particular, can be challenging given the constraints of the modern instrument. The registration of *medio registro* pieces relies not only on the specification of the organ, but also on limitations imposed by the many differences between historical Spanish and modern-day instruments. Indeed, in addition to the overall tonal composition of most historic Spanish instruments, the short octave and divided register are elements not to be found in most instruments today. As a result, certain compromises and special

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<sup>20</sup> Ibid., 65.

considerations must be allowed in order to transfer this literature effectively from the organs for which it was composed to those available to the average modern-day organist.

Though originally written for one-manual organs, *medio registro* pieces now often require the use of an organ with two or more manuals if the organ has no divided keyboard. Consequently, the performer will most likely need to play each hand on a different manual; one manual providing the solo voice(s) and the other the accompaniment. The performer must carefully study the score to make sure that the *c'/c#'* division required by the divided keyboard is judiciously observed in each voice. The difficulty in doing this is often further complicated by the fact that most scores, either in transcription or modern editions, do not show this division; clearly, performers of the period would have automatically known the guidelines of performing such pieces and would have had at their disposal instruments expressly built or suited to the style. The ideal scenario for modern-day players is to have access to a small-scale, divided-manual organ.<sup>21</sup> As this is unlikely for most, almost any organ will offer some reasonable choices. Large three- or four-manual instruments will offer a wide range of tonal options, but care must be taken in determining which stops are appropriate.

Perhaps the biggest logistical issue in the performance of the Spanish Baroque literature is the lack of a short octave. The short octave was a representative characteristic in Spanish organs of the period and, though it was used elsewhere, its inclusion in Spanish instruments persisted well after most European countries had discontinued its use.<sup>22</sup>

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<sup>21</sup> Ibid., 66.

<sup>22</sup> For a description of the short octave see Chapter 2, page 75.



The short octave found on most historic Spanish instruments can cause difficulties in the modern-day performance of this literature, as frequently the intervals—often a tenth or twelfth—formed by the tenor and bass notes of many *medio registro* pieces are beyond the hand span of the average player. These intervals, which would have been made far more manageable by the short octave, require the present-day performer to be creative in his or her approach. Depending on the particular composition, it is possible that the player may be able to play the bass lines with the left hand and to cover the remaining parts (presumably tenor, alto and soprano) with the right hand. This is especially conceivable in the chordal sections of many *medio registros*, which are absent of florid solo lines. However, the player should be aware that this approach might lead to two potential issues in performance. First, most editions of this literature are not written or edited to compensate for the lack of the short octave and, as a result, it is up to the performer to make the necessary score markings to facilitate the needed compromises, in the same way that the player must study the score to differentiate between sections utilizing one manual and sections that require two. Second, in solo sections that are virtuosic in nature it is nearly impossible to consistently employ this method; this is especially true in *medio registro de dos triples* compositions due to the number of voices and the complexity of the counterpoint.

There is another option for the performer that may yield better results in ease of execution. Given that almost all *medio registro* pieces do not include a written pedal line because of the small scope of the Spanish pedalboard,<sup>23</sup> the pedal register may be

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<sup>23</sup> Most pedalboards found in the larger organs of the Spanish Baroque would have consisted mainly of pull-down pedals from the manual. Given their limited compass and flexibility, these pull-downs would not have been able to successfully carry out solo functions and would have been used only as harmonic support and pedal points or to double a slow-moving *cantus firmus*. Consequently, the modern-day performer should be wary of solo pedal lines that are found in some modern editions of the Iberian repertoire.

employed to play notes caused by unwieldy intervals resulting from the lack of a short octave. In the case of *medio registro de tiple* (or *dos tiples*) pieces, the accompanying manual can be coupled to the pedal (utilized primarily, in this case, by the left hand). By doing this, the player can either play the tenor in the manual and the bass line in the pedal, or play both the tenor and bass voices in the left hand, employing the pedal only where large intervals necessitate its use. A combination of this technique with “grabbing” notes with the right hand when available will usually solve these issues in *medio registro de tiple* or *medio registro de dos tiples* compositions.

Conversely, the problems caused by the lack of a short octave tend to be less frequent in *medio registro de bajo* pieces. However, in select works where issues do arise, finding an effective solution can be more problematic than in *tiple* pieces. As in *medio registro de tiple* compositions, two possible solutions are open to the performer. The first is that the player may couple the solo manual to the pedal and may, when necessary, take part of the solo voice in the pedal. This approach is not recommended given that it will be difficult to match the virtuosic style of the manual in the pedal, but may be used as a last resort in specific measures or sections that are especially problematic. The second viable solution is to employ a 4’ stop for the accompaniment and play the parts an octave lower than written; this allows the player to “thumb” up or down from the solo manual (to play notes on one manual using a thumb or other finger from the hand located on a different manual) or, in chordal sections, for the left hand and pedal to assist.<sup>24</sup> Though problems may arise in both *medio registro de tiple* and *medio registro de bajo* pieces due to the lack of

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<sup>24</sup> James Wily, “The Pre-Romantic Spanish Organ: Its Structure, Literature, and Use in Performance,” (D.M.A. diss., University of Missouri – Kansas City, 1964), 132-133.

the short octave on modern-day organs, with a little creativity the player can come up with an adequate solution, allowing for an effective performance.

## Registration

Indications of registrations in documents from the sixteenth century are relatively sparse, despite changes in organ building that afforded the composer new registrational options. Though this document focuses primarily on the *tiento de medio registro*, a mention of the basics of Spanish organ registration stemming from the sixteenth century (in other words, the time before the *medio registro*) will provide a basis for the combinations mentioned later. The sixteenth century, like those that followed, allowed for a diverse set of timbral possibilities and, resultantly, registrations. Despite the various possibilities, a few standardized or basic registrations were prevalent.<sup>25</sup> Two of the earliest and most common would have been to employ the *lleno* (principal chorus, including upperwork) or the principal 8' (as this was one of the first stops to become independent of the *Blockwerk*). These two options would have been suitable for early *tientos*, such as those by Antonio Cabezón, as well as a variety of other sixteenth-century genres. As the disintegration of the *Blockwerk* became widespread throughout Spain in the early decades of the sixteenth century, registrational possibilities expanded to include many other combinations, with the following four being quite common: 1) principal 8' supplemented by parts of the upperwork; 2) 4', 2 2/3', and 2' flutes (or a gapped combination of 8', 2 2/3', and 2' if the

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<sup>25</sup> These registrations are geared toward organs built on an 8' pitch as this was the most prevalent pitch base in Spanish organs during the sixteenth century; for organs built on a 4' pitch, all pitches from the list would simply be transposed one octave higher.

registration is being built on an 8' pitch base); 3) an 8' reed stop, and; 4) combinations of the three previous possibilities.<sup>26</sup> In essence, these combinations, particularly the fourth in its various guises, allowed the player to employ almost any grouping of stops that would have been available on the average organ; even this short list of registrations made possible a wide variety of different sounds, allowing composer and performer to select a registration that was effective for any given piece.

The beginning of the seventeenth century brought with it the advent of various new techniques in organ building and, as a result, more varied registrations than ever before. Important sources of historic organ registrations can be found in organ contracts and other documents recorded by those who were perhaps most intimately acquainted with Spanish Baroque instruments: the organ builders themselves. Though the logging of registration indications by builders was rare up until the late seventeenth century, there are a few extant sources of tremendous value to the modern-day performer, including extensive instructions found in the organ contract for the 1613 Lorenzo Saurcot organ at the Monastery of San Juan de las Abadesas in Barcelona.<sup>27</sup> This instrument, a one-manual, undivided keyboard organ, is representative of Catalanian organs of the early seventeenth century. While it provides no insight into *medio registro* combinations or the use of reeds, it does give the reader a sense of common combinations for *lleno* pieces.<sup>28</sup>

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<sup>26</sup> Owen, *The Registration of Baroque Organ Music*, 19-20.

<sup>27</sup> Francisco Baldelló, "Órganos y organeros en Barcelona," *Anuario musical* 1 (1946), 203 (accessed 16 January 2014) <http://search.proquest.com/docview/740898264?accountid=14556>.

<sup>28</sup> For the complete specification of this instrument see: Johnson, *Historical Organ Techniques: Spain*, 20.

The registrations listed by Saurcot are grouped primarily based on the main quality or type of pipe employed in the registration; however, in some instances, Saurcot also mentions the liturgical circumstances under which certain registrations would be appropriate. The contract divides the registrations into three categories: *lleno* registrations, *flautat* registrations (flue registrations, generally denoting the combination of principals with flutes), and *nazardo* (flute) combinations.<sup>29</sup> The *lleno* (*pleno*) registrations are as follows:

- 1) a *pleno* consisting of all stops, including wide-scaled mutations (principals 8', 4' 2', 1 1/3', 1', III, flutes 8', 1 1/3')
- 2) a *pleno* used for "less important feast days," consisting of the principals 8' through *simbalet*, with no *docena nazarda* (principals 8', 4', 2', 1 1/3', 1' III)
- 3) a *pleno* "for common feast days and for playing variations": principals 8', 4', and 2', as well as the *simbalet* (principals 8', 4', 2', III)
- 4) a *lleno* registration for the *cadireta* (positive division) consisting of principals 4' through *simbalet*, with the *docena nazarda*, which was to be utilized "for Sunday masses" (principals 4', 2', 1', III, flute 1 1/3').<sup>30</sup>

The *flautat*—principal and flute—combinations listed in the organ contract consist mostly of simply two- or three-stop combinations, with only one combination being gapped. The combinations include the use of the 8' principal with or without the tremulant. Lesser, "more solemn" combinations include the use of the *flautado* and the *unisonus* (8' principal and 4' flute); the *flautado*, *unisonus*, and *octava* (principals 8', 4', and 8' flute); the

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<sup>29</sup> Ibid.

<sup>30</sup> Ibid. It should be noted that this one-manual instrument obviously did not have a *cadireta*. The registration listed as #4 above would have given the sound of a lighter, positive registration, once again showing the Spanish proclivity for aural illusions.

*flautado* and *octava* (8' and 4' principal); and the *unisonus* and 2' *quincena* (8' flute and 2' principal).<sup>31</sup> Such registrations, which allow for the use of gapped or ungapped principals and flute combinations, will be especially useful to the modern-day organist. *Flautat* combinations will help the player's ability to choose well-balanced combinations regardless of the size, type, or quality of instrument one has at his or her disposal.

As final recommendations, the author lists three possible combinations that include the flute stop *docena nazarda* (flute 1 1/3'). These include the *docena nazarda* in conjunction with either *flautado*, *unisonus*, or *octava* (in other words, 8' or 4' principal with flute 1 1/3'), the 8' flute and *docena nazarda* (8' flute and 1 1/3'), or the *docena nazarda* with the *quincena llarga* (flute 1 1/3' and 2' principal) and tremulant, which the author calls "an attractive registration."<sup>32</sup> These registrations in particular show a proclivity towards gapped registrations and, indeed, the many different possible tonal qualities of the Spanish organ.<sup>33</sup>

Another registration list, found in the contract for the 1624 Lérida organ,<sup>34</sup> contains 117 different registration combinations, many of which show similarities to those stated above. The Lérida organ, unlike the one in the Monastery of San Juan de las Abadesas, was a two-manual instrument and the builder, Antonio Llorens, included not only standard *lleno*

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<sup>31</sup> Ibid.

<sup>32</sup> Owen, *The Registration of Baroque Organ Music*, 62-63.

<sup>33</sup> It should be noted that the placement of flutes above principals, which do not tend to blend well, was not common in other European organ cultures of the time. In fact, Italian organs generally did not contain any higher-pitched flutes (and sometimes also lacked lower-pitched flutes). It appears that Spanish organists did not take issue with such combinations.

<sup>34</sup> For a full specification list of the Lérida Cathedral organ, see: Maarten A. Vente, "Mitteilungen über iberische Registrierkunst unter berenderer Berücksichtigung der Orgelkompositionen des Juan Cabanilles," *Anuario Musical* 17 (1962), 52-53.

and other basic combinations, but also offered combinations for solo voices. The contract lists four *pleno* possibilities for use on the *órgano mayor*; the assorted combinations provide the organist with differing strengths of registrations. Three of the four combinations use the 8' principal as the foundation of the registration. Some of the combinations also employ the 8' wood flute, and three of the four lack any use of mutation stops. The Lérida list supports the use of French-style registration and exemplifies that the modern-day player can register a single piece in a variety of ways to achieve a number of assorted affects.<sup>35</sup>

*Flautat* combinations are comprised of principal and flute stops at 8' and 4' pitches, and these combinations may be made up of any of these stops alone or combined with one another, and often incorporate the use of the tremulant. In addition, *nasardo* registrations (listed in various sources as either *nasardo* or *nazardo*) may also use the tremulant and these combinations may be "gapped." Examples of the *órgano mayor nasardos* include flutes 8', 4', and 2 2/3', or 8' and 4' principals and flutes with the 2 2/3' and possibly the 2' added. *Cadireta nasardos* may consist of the following: 4' and 2' principals; 8' and 4' flutes with the 2 2/3'; or flute 8', principal 2', and 1 1/3'. Various other combinations are also possible depending on the desired sound.<sup>36</sup>

While these organ contracts provide great insight into the types of organ registrations that may have been popular during the first quarter of the seventeenth century, they also leave a number of unanswered questions. One who studies these lists is

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<sup>35</sup> Juan Cabanilles, *Opera omnia: musici organici Johannis Cabanilles*, 4 vols., ed. Higinio Anglés (Barcelona: Biblioteca Central, 1927-1956), xxxiii-xxxiv.

<sup>36</sup>Vente, "Mitteilungen über iberische Registrierkunst unter berenderer Berücksichtigung der Orgelkompositionen des Juan Cabanilles," 52-53.

left to wonder whether such combinations were representative of common registration practices of the day or whether they were simply the opinions of select organ builders, who no doubt had strong ideas about how their organs should be played. The modern-day player is left with possible combinations that may be better in theory than in practice.

Unlike the *lleno* pieces of the sixteenth century, which allowed for regulated creativity based on a limited number of possible combinations, the *medio registro* pieces introduced and, indeed, required, more innovative registrations. To this end, one must surely refer to the writings of the composers themselves to bridge this gap between theory and practice. Extant printed or manuscript copies of music from the Spanish Baroque often provide important clues to registrational practices of the period, given that many of these collections also function as theoretical treatises. In fact, many of the earliest guidelines for registrations are found in extant documents from Spain and the south of France.<sup>37</sup> Though Francisco de Peraza (1564–1598), whose *medio registro alto de primer tono* is often considered to be the earliest extant divided keyboard piece, leaves no evidence as to what registrations may have been used for this or any of the earliest of *medio registro* compositions, the turn of the seventeenth century saw the flourishing of the *medio registro* and ushered in a new generations of composers whose extant works provide more information.

By far the most in-depth information regarding the registration of the *tiento de medio registro* comes to us from Francisco Correa de Arauxo (1584-1654), in his *Facultad orgánica* (1626). In addition to its status as both an important theoretical treatise and

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<sup>37</sup> Owen, *The Registration of Baroque Organ Music*, 20.



collection of *tientos* and other pieces, Correa de Arauxo's *Facultad orgánica* has become one of the principal guides on seventeenth-century Spanish organ registration.

Though the theoretical treatise that precedes the compositions only touches slightly on registration, the compositions that follow each include a brief preamble—some of which include registrational recommendations. *Facultad orgánica*, unlike many of the French and Italian organ treatises of the time, does not explicitly include a registration table. Nonetheless, the treatise's many *medio registro* pieces include vague, but valuable registration suggestions. This inclusion marks one of the earliest examples of registration indications being used in printed music in the Iberian Peninsula.<sup>38</sup>

Correa's *Facultad orgánica* is likewise important given that it is one of the only treatises of the period that is specifically aimed at organists, and more specifically, for organists of small parish churches, not large cathedrals. It is also crucial to the understanding of seventeenth-century Iberian organs when compared to other extant, contemporaneous registration lists, such as those from Lérida and Barcelona, discussed above; unlike these lists, which are representative of the type that would be associated with the Catalanian style of organ building (which, at this time, implies a one-manual, undivided-keyboard instrument with few reed stops), Correa's recommendations are aimed at the Castilian style of organ, one with both divided registers and an abundance of reeds.

Given Correa's intended audience, one may infer that his registrational instructions are based on the specifications that he had at his disposal on the organ(s) at the church in

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<sup>38</sup> Ibid., 64-65.

San Salvador in Seville where he did most of his composing,<sup>39</sup> and the typical organ to which most Castilian organists and composers would have had access. Fortunately, by the time of the publication of *Facultad orgánica*, organs in Correa's Castile had achieved a certain degree of standardization—the aforementioned one- or two-manual divided-register instrument—and, thus, would have had similar specifications to one another. One may infer, based on other stoplists from the area as well as the registrations listed in Correa's treatise, that most organs would have had: a large principal chorus with a variety of upper work; a flute chorus; 8', 4', and 2' horizontal reeds in the bass; 16', 8', and 4' horizontal reeds in the treble register; and a variety of *regales* and interior reeds.<sup>40</sup>

Correa's *Facultad orgánica* gives modern-day performers many diverse options of registration, a majority of which adhere to the basic guidelines stated above. However, the indications found in the individual pieces of the *Facultad orgánica* only occur in a minority of the pieces—all *medio registro*, starting with *Tiento XXXV*—and are less than thorough in their designations.<sup>41</sup> However ambiguous, Correa does provide instructions for the registration of both the accompaniment and solo parts, although he most likely assumed that the performer would know the basic rules and apply them to the specific instruments at their disposal. For the accompaniment Correa makes several recommendations. In *Tiento XXXV* he states: "in large organs of 8' or more the player should take off the lowest principal or flute and leave the octave or the [4'] flutes in order that the piece can sound

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<sup>39</sup> Unfortunately, the specifications of the instruments with which he was most intimately acquainted are not known.

<sup>40</sup> Holland, "Francisco Correa de Arauxo's 'Facultad Orgánica,'" 113-115.

<sup>41</sup> For a complete translation of Correa's preambles, see: Holland, 265.

clearer.”<sup>42</sup> The modern-day performer should feel free to experiment with pitch bases other than those at the 8’ pitch. In the preamble to *Tiento XLVII* Correa suggests that the accompaniment was to be played on “the three voices of *flautado*,” which, in translation, would most likely mean the combinations of 8’ and 4’ principals and/or flutes.<sup>43</sup>

A recurrent theme throughout Correa’s suggestions is the use of the *lleno* as a solo combination for right-hand solos and the *trompeta* for left-hand solos.<sup>44</sup> He does not provide any advice for his *medio registro de tiple* or *medio registro de baxo* pieces, but rather concentrates on the instructions for compositions with two solo voices, the *medio registro de dos triples* or *medio registro de dos baxones*. Correa probably assumes that if the player can select combinations for the more difficult pieces with two solo voices, they will be able to make adequate choices for simpler pieces that will be registered in a similar fashion. In the instructions for *Tiento LIV*, a *tiento de medio registro de dos triples*, Correa again suggests that the treble parts be played utilizing the *lleno*, with *flautados* as the accompaniment stops. In the case of a *medio registro de dos baxones*, Correa recommends that the player employ the *lleno*, as was employed in the case of the *medio registro de dos triples*. However, *trompetas* may also be suitable for the solo voices; again, the accompaniment is likely to be *flautados*. The modern-day performer should be advised to listen carefully for balance between the solo and accompaniment.<sup>45</sup>

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<sup>42</sup> Ibid., 281.

<sup>43</sup> Ibid., 288.

<sup>44</sup> Ibid., 114. The player should bear in mind that horizontal reeds were not common until later in the seventeenth century, so Correa is referring here to interior trumpets.

<sup>45</sup> James Dalton, “Iberian Organ Music Before 1700,” in *The Cambridge Companion to the Organ*, Nicholas Thistlethwaite and Geoffrey Webber, eds. (Cambridge: Cambridge University Press, 1998), 171.

In the three *glosas* (variations) on the *Canto Llano de la Immaculada Concepción* (“Three Free Ornamentations on the Plainsong of the Immaculate Conception of the Virgin Mary, our Lady”), a *medio registro de tiple* which is listed as *Tiento LXIX* in *Facultad orgánica* and follows a plainsong setting of the same melody,<sup>46</sup> Correa states that the lower parts should employ the *flautado* and the solo voice (here, the treble) should utilize the *mixtura*. Correa goes on to state that the organist should choose the mixture that is most suitable.<sup>47</sup>

Correa frequently advocates the use of mixture combinations, though what he means by a “mixture” combination—cited as *mistura* or *mixtura* in various sources—is far from evident. One may conjecture that Correa means either a principal chorus with a mixture stop (the so-called *mixtura de lleno*) or simply a combination of various stops, with one of those possible combinations being the pitches that make up the *cornet*; for example, 8', 4', 2 2/3', 2', and 1 3/5'.<sup>48</sup> It is also possible that mixture combinations could be comprised of any number of combinations of flue stops, many of which probably employed the use of gapped pitches.<sup>49</sup> In many ways the mixture combinations are similar, if not identical, to the *lleno* combinations, but with the exceptions that mixture combinations may include wide-scaled mutations. In *Tiento LIV* Correa suggests that *mixtura* and *trompeta* combinations could be used as solos. And finally, in *Tiento LXIX*, Correa allows the player to decide upon his own solo combination, but asserts that the 8' *flautado* should be used as

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<sup>46</sup> This *tiento* is found in the sixth “grade” of pieces; grades one through five are in order of increasing difficulty, while grade six designates *versos* and other liturgical pieces.

<sup>47</sup> Dalton, “Iberian Organ Music,” 171.

<sup>48</sup> Holland, “Francisco Correa de Arauxo’s ‘Facultad Orgánica,’” 115.

<sup>49</sup> Alexander Silbiger, ed., *Keyboard Music before 1700* (New York: Routledge, 2004), 327.

the accompaniment. Examples of a few of the more creative combinations might include the *címbala* with 16' flute and the 2 2/3', or a 4' principal with the *tolosana*. According to Correa, mixture combinations are multifaceted registrations that result in almost infinite possibilities.<sup>50</sup>

Despite its often disjointed and unclear writing style, Correa's *Facultad orgánica* is vital to understanding seventeenth-century registration practices; in particular, to the registration of *medio registro* pieces. Regardless of the imprecision of these suggestions, one may infer that these markings are indicative of registrations by Castilian organists in the generations directly following the advent of the *medio registro*.

Following Correa was the composer Sebastián Aguilera de Heredia (1561-1627), who was one of the most famous *tiento* composers of the early seventeenth century, and one of the first important organists of the Aragonese School. His extant *tientos* include some examples of the *medio registro*. Unfortunately, the original organ specification from his tenure at La Seo Cathedral in Zaragoza is not known. However, documentation on the organ, which has been updated numerous times from the seventeenth to the nineteenth centuries, does provide important clues as to the instrument that Aguilera de Heredia had at his disposal and, consequently, the types of registrations he may have used. Though the original organ with a large Gothic case was built in the late fifteenth century, the most notable additions to this organ stem from 1577, when Guillaume de Lupe "brought all the stops of the different divisions together onto one manual."<sup>51</sup> This work was followed in 1610 by the possible incorporation of *medio registro* stops by de Lupe's son, Gaudioso. The

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<sup>50</sup> Owen, *The Registration of Baroque Organ Music*, 63.

<sup>51</sup> Silbiger, *Keyboard Music Before 1700*, 313.

organ now possesses divided reed and *corneta* stops. Though larger than the organ that Correa played (two to three manuals at the time of Aguilera de Heredia's employments at La Seo), it is likely that the registration of Aguilera de Heredia's compositions would be similar to the suggestions found in Correa's *Facultad orgánica*.<sup>52</sup>

Juan Cabanilles (1644-1712), organist at Valencia Cathedral from 1665 until his death, followed Correa de Arauxo as one of the most famous and prolific composers of *tientos* (many of which are *medio registros*).<sup>53</sup> Sadly, as in the case of Aguilera de Heredia, little is known about the organ that Cabanilles played. We do know that Cabanilles's instrument was built between the years 1631-1633 by Antonio Llorens, the builder of the Lérida Cathedral instrument listed above. The Lérida specification is often cited in reference to the type of instrument that Cabanilles may have had at his disposal.<sup>54</sup> Despite sparse details of Cabanilles' Valencian instrument, documents show that Cabanilles had new reed stops installed during a 1693 renovation, including a *medio registro clarines* in the façade.<sup>55</sup> Though Cabanilles almost certainly would have used *lleno* registrations for solos combinations in his *medio registro* pieces, his insistence that new half-stop horizontal reeds be installed in his Valencian organ once again shows the importance of reeds in the

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<sup>52</sup> The original organ at La Seo was built in 1469 by Joan Ximénez Garcés and received its last update in 1857 by the Spanish builder Pedro Roqués, who took great care to preserve existing pipework. The organ was restored in recent years by Gerhard Grenzing. For a history of the different stages of the La Seo organ and the present-day stop list see <http://www.grenzing.com/organosshow.cfm?id=12&ip=1012> (accessed 5 January 2015).

<sup>53</sup> Willi Apel, *The History of Keyboard Music Before 1700*, trans. Hans Tischler (Bloomington: Indiana University Press, 1972), 771.

<sup>54</sup> Miguel Bernal Ripoll, "Las contras de los órganos barrocos del país Valenciano: reflexiones sobre su empleo en la música de Cabanilles," *Revista de musicología* 19, 1-2 (enero-diciembre 1996), 136.

<sup>55</sup> Dalton, "Iberian Organ Music," 174.

performance of Spanish organ music and, consequently, that the use of a variety of solo reeds stops would be appropriate in the works of Cabanilles.

An anonymous manuscript dating from around the turn of the eighteenth century provides a lengthy list of possible registrations to be used on the four large Brebos organs located at El Escorial in Madrid.<sup>56</sup> This list is interesting in that it is one of the few extant documents that provide registrations for older instruments; the El Escorial organs dated from c 1586, making them at least a century old by the time the registration lists were written. It is also notable as, at the time when the El Escorial organs were built, they did not represent standard practices in Spanish organ building, but displayed an interesting blend of new and old organ building trends and exhibit the Flemish influences in Spain. The lists are also significant in that the anonymous author provides detailed lists for each of the four different organs; this is interesting given that, of the four instruments built for El Escorial, there were only two different specifications. The author explains this oddity by stating that each of the organs requires a different set of combinations due to the variance in their intonation. In reading the combinations it is necessary to remember that the author's stop nomenclature is frequently imprecise; substitution of terms (such as *cornetas* for *dulzaynas*) occurs frequently. Regardless, the reader gains valuable insight into possible combinations being used at the beginning of the eighteenth century.<sup>57</sup>

The combinations listed for the *órgano grande del choro del prior* are split into registrations for the lower (*órgano mayor*) and upper (*cadireta*) manual of the organ. The

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<sup>56</sup> For more information regarding the four El Escorial organs see: James Wyly and Susan Tattershall, *The Brebos Organs at El Escorial* (Richmond, Virginia: The Organ Historical Society, 2007).

<sup>57</sup> Wyly, "The Pre-Romantic Spanish Organ," 136.

*órgano mayor* combinations include: 1) *lleno* with *trompetas*; 2) *chirimías* with flutes and 8' principal; 3) *bombardas* with *flautas requintas* and *flautas tapadas*; 4) *flautas* and *flautado* with *chirumbela*; and 5) *flautado* with *temblante*, supplemented by the *ruyseñor*, the *gayta*, or the *tambor*. The registration indications for the upper keyboard are as follows: 1) *lleno* with *orlos*; 2) *corneta* with *octavas del flautado*; 3) *dulzaynas*, *cornetas*, and *flautas*; 4) *lleno menor*, *flautas*, and *cornetas*; and 5) adding a single reed stop to combination #4.<sup>58</sup>

The aforementioned combinations are fairly plain. They show a tendency towards combining the *lleno* with reeds stops, *flautat* combinations, the use of flute stops as support stops (either flutes or principals) to solo reeds, and the occasional inclusion of auxiliary stops such as drums and birdcalls. While these combinations may reflect a different approach to registration than the Brebos family might perhaps have intended over a century earlier, they are in line with various other registration lists from the beginning of the eighteenth century and, indeed, similar to those found in many seventeenth-century sources. What is especially significant is that the author of the document includes a multitude of combinations for the performance of *medio registro* works. As the organs at El Escorial were not originally equipped with many divided stops, the author of the document is writing registrations for a popular genre that, out of necessity utilize not one, but two manuals. The writer's recommendations for these combinations are found in Table 5-1 below:<sup>59</sup>

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<sup>58</sup> Ibid., 137.

<sup>59</sup> Ibid., 137-138.



Table 5-1. *Medio registro* Combinations for the *órgano grande del coro del prior*, El Escorial, Anonymous Author.

Lower Manual:	Upper Manual:	Other Indications:
1. flautado	dulzainas	
2. flautado	corneta	
3. flautado	orlos	
4. flautado	ruyseñor, flautas, flautado	
5. lleno menor, flautas	orlos	used as a <i>medio registro alto de mano izquierda</i> (left hand plays solo line on treble half of upper manual)
6. flauta mayor, bordón, flautas abiertas, tambor	flautado, flautas, cascabelado	
7. flautas, flautas requintas	temblante, cornetas	
8. lleno, flautado	trompetas, lleno	in the style of a French <i>plein jeu</i>
9. flautado mayor, flautas abiertas, trompetas		employ pedals; a combination for processions and the end of psalms.

As with the other registration indications cited by the anonymous author of the El Escorial manuscript, those found in Table 5-1 are hardly out of the ordinary. The suggestions indicate a flute, principal, or chorus accompaniment with a chorus or reed solo

with the occasional use of auxiliary stops or tremulant. However, the anonymous author of the El Escorial manuscript may have recognized the popularity of the *medio registro* and put great emphasis on dictating acceptable combinations to be used on two-manual instruments. Of special note is #5 in the above table (*lleno menor* and *flautas* with *orlos*), which the author states should be used as a *medio registro alto de mano izquierda*, in which the left hand plays the solo line on treble half of upper manual.

The author goes on to describe more combinations that may be employed when registering these compositions, some of which go into great detail. Some include the following: *flautas* and *flautado* of the upper keyboard and *trompetas* of the lower keyboard are suitable *medio registro* for the left hand; *flautado* and *lleno* of the upper keyboard with the same *trompetas* of the lower keyboard is a *medio registro* of the left hand; *flautas* and *flautado* of the upper keyboard with *bombardas* in the right hand on the lower keyboard; *flautas* and *flautas sordas* and *quincenas* of the upper keyboard, with *chirumbelada medio registro* (in reality it had one rank in the bass and three in the treble) in the lower keyboard is a good combination; it must be remembered that this *chirumbelada de medio registro* works well with most of the combinations of the upper keyboard as long as they do not exceed three registers; *flautado* and *lleno* and *orlos* of the upper keyboard and *flautado* and *lleno* and *trompetas* of the lower keyboard are very appropriate combinations for the playing of dialogues and echos.<sup>60</sup>

The author also provides combinations for the *órgano mediano del choro del vicario*. The writer advocates the use of support stops with any stops (*flautado*, *flautas*, *trompetas*, *dulzaynas*, *orlos*, etc.) that are played on their own. To this he adds that weaker stops

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<sup>60</sup> Wyly, "The Pre-Romantic Spanish Organ," 138.

should be supported by a principal stop and those that are stronger should be supported by a flute stop. He goes on to list the combinations for this organ that he feels are the most effective, as seen Table 5-2 below.<sup>61</sup>

Table 5-2. Possible Registrations on the *órgano mediano del choro del vicario*, El Escorial, Anonymous Author.

1. lleno, trompetas bajas
2. flautas bajas, flautas altas, chirumbelada primera, trompetas altas
3. flautado mayor, trompetas bajas
4. flautas, flautas altas, orlos altos
5. flautas, flautas altas, orlos bajos
6. flautas, flautas altas, cornetas bajas
7. flautas, lleno tercero (quincena)
8. lleno tercero, flautas bajas, cornetas altas
9. flautado mayor, lleno tercero, flautas altas, flautas bajas, chirumbela
10. flautado mayor, trompetas bajas
11. flautado mayor, lleno tercero, trompetas altas
12. flautas altas, flautas bajas, temblante
13. flautado, ruyseñor

As in the indications for the other organ, the author also specifies which *medio registro* combinations are among his favorite for the *órgano grande del coro del vicario*. He states: “the combinations of one keyboard together with those of the others are the best and [are] of great novelty crossing the hands and making *medio registros* in this manner.

<sup>61</sup> Ibid., 138-139.

The *lleno* of the lower keyboard with *trompetas* and the *lleno* of the upper keyboard, changing the hands sometimes to one and other times to the other, make successful dialogues.”<sup>62</sup> As above, the author recommends myriad registrations for use in *medio registro* pieces, as seen in Table 5-3.<sup>63</sup>

Table 5-3. Additional *medio registro* Combinations for the *órgano grande del coro del vicario*, El Escorial, Anonymous Author.

Lower Manual:	Upper Manual:	Other Indications:
1. trompetas	lleno	left hand solo on lower manual
2. flautado	flautado, ruyseñor	right hand solo on upper manual
3. flautado, cornetas	flautado	cross hands when necessary
4. flautado, ruyseñor	flautado	right hand on upper manual
5. chirumbela	flautado, flautas, pipharo, lleno menor	right hand on lower manual
6. flautas, chiflete, bombardarda	flautado, flautas	right hand on lower manual
7. chiflete, flautas, bombardarda	flautado, flautas	left hand on lower manual
8. flautas, trompeta	flautado, flautas, piphanos,	right hand on lower

<sup>62</sup> Ibid., 140. Translation by Wyly. Though it is not entirely clear from the author, one may assume that he is here referring to the traditional style of performance of *medio registro* pieces on two-manual instruments, whereby the chordal passages are played by both hands on the accompanimental manual, and the solo passages are played on two different manuals.

<sup>63</sup> Ibid.

	quintas	manual
9. flautas		
10. boz humana, <sup>64</sup> chirumbela		left hand solo with no specified accompaniment

Finally, the author offers other suggestions for the registration of *medio registro* pieces on this organ:<sup>65</sup>

Table 5-4. Other *medio registro* Registrations for the *órgano grande del coro del vicario*, El Escorial, Anonymous Author.

Lower Manual:	Upper Manual:	Pedal/Other Indications:
1. trompetas, flautas	flautado, flautas	
2. flautas, trompetas	flautado, flautas, piphanos	right hand on lower manual
3. flautado, requintas, tambor, chirumbela	flautado, flautas, dulzaynas	play the treble at times on one keyboard and at times on the other
4. ruyseñor, flautado	flautado, flautas, cascabelado	right hand on upper manual
5. chirimías	flautado, flautas	
6. trompetas, flautado, lleno	flautado, flautas, lleno	use pedal <i>trompetas</i> ; full combination for ends of

<sup>64</sup> The author of the manuscript praises the *boz umana* stops found in the El Escorial organs citing that in these organs the stop was constructed in a superior fashion than other stops of this kind.

<sup>65</sup> Ibid., 141.

mayor	mayor	psalms and entries of processions
7. flautas	flautado, cornetas	cross hands when needed

The above registration lists show a multitude of possible combinations that use the full variety of reeds, auxiliary stops, and flue stops available on the El Escorial organs. Of note in Table 5-4 is recommendation #3, which the author states can be useful in pieces where manual changes are appropriate. This indication could imply the chordal sections of *tientos* where the accompaniment would be played on one manual or in pieces where a dialogue-like performance is applicable. Suggestion #6 in Table 5-4 demonstrates that the use of pedal at this time remains confined to pedal points and certain important parts in the liturgy. Overall, the wide array of reed stops allows the player to choose varying strengths of registrations to suit the qualities of an individual piece.

Just as it is difficult to tell whether the anonymous eighteenth-century registration lists for the Brebos El Escorial organs have implications for the seventeenth century, it is problematic to discern whether organists or organ builders of the eighteenth century were interested in historic registrations. One may infer that, given the lack of significant changes in the Spanish organs from the seventeenth to the eighteenth century, extant registration lists from the composers and organ builders of the eighteenth century may likely be applied to not only the music of their contemporaries, but may also be used to make informed choices about music from earlier generations.

Martín y Coll's five-volume collection, *Ramillete Oloroso. Suaves flores de música para órgano* (compiled c 1706-1709) is a significant source of organ registrations, given that the

volumes are a compilation of some 1,850 pieces of organ music.<sup>66</sup> The collection is even more noteworthy when one takes into consideration the sources of these compositions: though most are anonymous, scholars have discovered that works by Martín y Coll and other Spanish composers, as well as some by Bach, Handel, and Domenico Scarlatti are included among its contents.<sup>67</sup> The instructions concerning registrations place great emphasis on the use of reed pipes, particularly the *clarines*. Martín y Coll describes the registration for his *Entrada de clarines*; he states that *clarines* should be used as the solo voice in this *medio registro* composition.<sup>68</sup>

The expansion of the tonal palette and the increasing number on registers of organs from the seventeenth to the eighteenth century was integrally tied to the increased virtuosity of eighteenth-century organ literature. With the amplified skill and technique required to play organ pieces came new ways of utilizing the manuals, in addition to their individual stops. Pablo Nassarre expounds upon this subject in his *Escuela música* of 1723,<sup>69</sup> where he states that though two-manual organs provide performers with many registrational options, “the organists, not content with this, have secured the invention of so many registers and have such a love for them, that it is an ear-flattering marvel that

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<sup>66</sup> Silbiger, *Keyboard Music Before 1700*, 337.

<sup>67</sup> Higinio Anglés, ed. *Scripta musicologia*, vol. 3 (Rome: Edizioni de Storia e Letteratura, 1976), 1556.

<sup>68</sup> Vente, “Mitteilungen über iberische Registrierkunst unter berenderer Berücksichtigung der Orgelkompositionen des Juan Cabanilles,” 55.

<sup>69</sup> A complete facsimile of Nassarre’s two-volume treatise can be found and downloaded at: <https://play.google.com/store/books/details?id=ucDjZPUUnuXQC&rdid=book-ucDjZPUUnuXQC&rdot=1> (Part One) and [https://play.google.com/store/books/details?id=ucDjZPUUnuXQC&rdid=book-ucDjZPUUnuXQC&rdot=1\(Part Two\)](https://play.google.com/store/books/details?id=ucDjZPUUnuXQC&rdid=book-ucDjZPUUnuXQC&rdot=1(Part Two)).

draws attention to this instrument more than any other kind of music.”<sup>70</sup> It seems that long after the advent of divided registers, horizontal reeds, and dummy pipes, the Spanish were still seeking ways to create impressive aural illusions and sensations. Though Nassarre does not specify to what he is referring, it is possible that he was alluding to the newest subgenre of the *tiento*: the *medio registros doblados*. This type of composition was played with a different registration on each half of a two-manual, divided-register instrument.<sup>71</sup>

Unfortunately, like Martín y Coll, Nassarre left the modern-day performer scarce information on how he felt his own compositions should be registered. The following statement does, however, give some information on his attitude toward early Spanish music and the development of the *medio registro*:

The ancients contented themselves with less technique than do the moderns, because they were able to obtain [adequate] technique with less work, according to the disposition of [their] organs. They did not have the divided registers, which were invented later, disposed so that each register affects no more than half the keyboard, dividing into two that which before was only one; [and] disposed so, one hand can play with the *lleno* of the organ, and the other with the *flautado*; and following this invention, the organists invented the *obras partidas*, arranged in many ways, disposed so that the voice which had to play in the *lleno* was all glossed; for the right hand it [the *glosa*] was the soprano, and for the left hand it was the bass; and the other hand played three voices, serving as the accompaniment to the *glosa*.<sup>72</sup>

In addition to this, Nassarre states that in *lleno* pieces one particularly valuable combination is to offset higher pitches by utilizing a 16' *pleno*. Consequently, in modern-

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<sup>70</sup> Mary Jane Corry, “Spanish Baroque: The Organ and its Music,” *Music* 3/4 (April, 1969), 44. Translated by author.

<sup>71</sup> Owen, *The Registration of Baroque Organ Music*, 132. This genre is similar to *quatour* playing in France in that it was primarily an improvisational form. Few written French *quatours* are extant; no written example of the Iberian *medio registros doblados* exists.).

<sup>72</sup> Wyly, “The Pre-Romantic Spanish Organ,” 143. The original Spanish can be found in: Pablo Nassarre, *Escuela música* 2, 472-473.



day performance, one must be sensitive to the use of higher-pitched mutations and compound stops; choruses based on the 16' pitch will be able to use more of these than choruses built on the 8' pitch.<sup>73</sup>

A registration guide from Segovia Cathedral from about 1770 explores the tonal possibilities of a large Iberian organ from the late eighteenth century. The guide shows that the Iberian organ has grown to an extent where the performer has almost innumerable options for striking and innovative registration combinations. Some of these possibilities stray from the norms established throughout the sixteenth and seventeenth centuries. Among the options, the unknown author suggests a series of *dialogue* registrations (with mutations or reeds in each hand, as in the French style), *regal* solos (*dulzaina* in either the treble or the bass), half-stops, echo effects (in the Dutch style), and a variety of ways in which the performer can combine trumpets (both vertical and horizontal), or the combination of cornets and reeds (some gapped). It appears that the pedal continued to be secondary in importance because its use is not considered.<sup>74</sup>

Other organ contracts and manuscripts by organ composers show an "anything goes" attitude toward organ registration. In addition to the techniques listed above, one also finds the use of flutes combined with a variety of reed stops and, even more outlandish to their predecessors, the combination of interior vertical reeds (such as the *trompeta real*) with outer horizontal trumpets, and the use of cornets with reeds 8' and 4' or 8' and 2'.<sup>75</sup>

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<sup>73</sup> Owen, *The Registration of Baroque Organ Music*, 133.

<sup>74</sup> Barbara Owen, et al., "Organ," *Grove Music Online. Oxford Music Online*. Oxford University Press (accessed 7 November 2012)  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/44010pg5>.

<sup>75</sup> Ibid.

The organ works of two late-eighteenth century Spanish organists, José Lidón (1748-1827) and Felix Máximo López (1742-1821), contain lists that help give insight to registrational trends after the mid-eighteenth century. In addition, they are especially interesting given that both Lidón and López worked as organists at the Royal Palace in Madrid and were most likely writing with the palace's Bosch organ as their reference point. The list is intriguing in that neither Lidón's or López's output include any notable works for *medio registro*—though some *tientos*, *versos*, or even sonatas could have possibly used the divided keyboard in performance. Yet, the genre must have retained enough widespread appeal for both composers to consider possible registrational combinations. In stark contrast to many of the complicated and quirky registrations listed above, Lidón and López's recommendations tend to be simple, often employing single stops in one or both hands. However, unlike the El Escorial manuscript, this document asserts that the following combinations of registrations may be utilized on either a *medio registro* keyboard or on two different manuals, simply stating which hand should employ which stops. The combinations can be found in Table 5-5 below.<sup>76</sup>

Table 5-5. Possible *Medio Registro* Combinations by José Lidón and Felix Máximo López.

Left Hand:	Right Hand:
1. clarín and nasardos <sup>77</sup> or compuestas <sup>78</sup>	trompeta magna, tolosana

<sup>76</sup> Wyly, "The Pre-Romantic Spanish Organ," 147-148.

<sup>77</sup> The *nasardos* (a mixture stop) should not be confused with the *nazardo* or *nasardo* (a 2 2/3' mutation).

<sup>78</sup> *Compuestas* can denote either a type of *lleno* (often seen as *compuestas de lleno*, multi-rank mixtures) or as a single stop it may signify the use of a high-pitched mixture similar to a *címbala*. The *compuestas*, meaning

2. nazardo	clarín
3. flautados	corneta
4. lleno	clarín
5. lleno	trompeta magna
6. flautado	flauta traversera
7. lleno	corneta

The above registrations show a simplicity, as exhibited by the complete lack of complex gapped registration, not found in those of many of their predecessors. Particularly of interest in Table 5-5 is the first indication, combining the *clarín* with a mixture stop (*nasardos* or *compuestas*) juxtaposed against the horizontal *trompeta magna* and the multi-rank *tolosana*; reeds and mixtures in both left and right hand. This would no doubt be a tricky combination on modern-day organs as it may be difficult to balance such a registration; however, the ingenuity and unconventional nature of the indication is appealing nonetheless. This creative suggestion is the highlight of the table, as the following suggestions simply balance solo reed stops (or, in the case of suggestion #6 a principal solo) against *lleno*, principal, or flute accompaniments.

## Summary

Addressing issues of registration is essential to undertaking a well-informed and convincing performance of Spanish organ music from the sixteenth through eighteenth

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“composed mixture,” is primarily seen in organ specifications dating from the end of the eighteenth century onwards.

centuries. New scholarly research into the repertory and its performance practice can aid the modern-day performer in navigating the performative and registrational issues, as can an understanding of Spanish organ construction and specifications. The modern-day performer can glean much information from the extant material on registrations found in the treatises and musical collections of composers such as Correa de Arauxo, Nassarre, López, and Lidón. Furthermore, suggestions by organ builders can provide great insight into how these figures wished their instruments to be utilized. Once the performer understands the general constructs and capabilities of the average Spanish Baroque organ and the wide-ranging, but fairly formulaic registrational combinations used by the various composers of the repertory, these norms can be applied to almost any present-day instrument with successful results.

## Conclusion

The Spanish *tiento* took root in the 1530s, and, in its earliest form, constituted a genre with close ties to the Italian *ricercar* and *toccata*, as well as the *fantasias* of Germany, the Netherlands, and England. The term *tiento*, an adaptation of the Spanish verb *tentar*, meaning “to test” or “to try out,” indicated the new genre’s use as a means to test out a player’s technical abilities or allow them to become familiar with an instrument.

These initial examples of the genre, many found in collections dating from the 1550s and 1560s, were written for a number of performance mediums. Though most commonly written for lute, harp, or *vihuela*, *tientos* were also written for an assortment of ensembles. By the end of the sixteenth century, the organ *tiento*, which likely developed concurrently with the *vihuela tiento*, would become one of the most important and prolific genres of Spanish organ music. Usually characterized by alternating sections of strict imitative counterpoint and figurative material, these pieces were often indistinguishable from keyboard music of other contemporaneous genres.

The adoption and development of the *registro partido*—the divided keyboard, usually split between *c'* and *c#'*—became one of the most characteristic elements of organs in the Iberian Peninsula from the mid-sixteenth century onwards. An import from the Netherlands, the *registro partido* was used sporadically throughout Europe during the sixteenth and seventeenth centuries, but was enthusiastically embraced by both native and foreign builders in Spain. The numerous artistic and pragmatic benefits of the building technique helped facilitate its ensuing popular, causing its use to slowly spread throughout Spain—first throughout Castile and, eventually, in Catalonia and Aragon, and Portugal.

The inclusion of *registro partido* stops resulted in the development of a new genre, the *tiento de medio registro*. For the first time, organ composers wrote compositions that could only be effectively performed on the organ, specifically one that had a certain type of construction. Francisco de Peraza is often credited with being the inventor of the genre. By the early seventeenth century, other organists, including well-known figures such as Francisco Correa de Arauxo, Sebastián Aguilera de Heredia, and Pablo Bruna, were writing in this style.

With new generations of composers the *tiento de medio registro* introduced new compositional styles and characteristics. Examples of the developing genre no longer closely resembled the *tientos* of Juan Bermudo, Antonio de Cabezón, and other early writers. Members of Correa's era fully exploited the new-found registrational capabilities of *registro partido* organs, increased the length of their pieces, and, frequently, changed their primary focus from sections featuring contrapuntal writing to those comprised of virtuosic figuration and flourishes. Later generations, such as those including illustrious composers like Juan Cabanilles, continued to put their individual mark on the genre. They expanded the size and formal techniques of the genre, as well as included elements that were uniquely their own. The result was a significant output of diverse organ music written for *registro partido*.

Though the *registro partido* continued to be a common inclusion in most organs well into the nineteenth century, the *tiento de medio registro* eventually was replaced by newer styles of composition, including the keyboard sonata. A genre that had endured for over two centuries steadily and unceremoniously faded into the past, leaving behind a corpus of vibrant organ literature unlike any other.

The body of research on Iberian organ music and its modern-day performance has grown significantly in the last few decades. Most of these studies center on the *tiento* in general or the genre's relationship to other musical styles of the time. While such focus is crucial to the overall knowledge of the repertoire, this examination of the *tiento de medio registro* and the *registro partido* and its performance is required to appreciate fully and understand the unique ingredients that came to epitomize the output of the Iberian school of organ composition.

With the resurgence of interest in and scholarship on the *tiento de medio registro* repertoire comes a variety of questions and considerations concerning the genre's modern-day performance. Of these, registration often presents the most difficulty. Extant stoplists, organ contracts, and theoretical writings contain significant insight into this music, allowing for a new look into the motivations and ideas of an era long past. Consequently, addressing the performative and registrational issues of the literature and forming a knowledge base regarding performance practices and trends in Spanish organ building will aid the player in achieving an historically-informed performance of the Iberian literature and allow this repertoire to once again show its brilliance—as it did for well over two centuries.

## Bibliography

Althouse, Joanne Elizabeth. "Jose Elias (c 1678-1755) and Late Baroque Organ Music in Spain." D.M.A. diss., University of California, Los Angeles, 1998.

Anglés, Higinio, ed. "Antonio de Cabezón." *Die Musik in Geschichte und Gegenwart*, vol. 2. Kassel: Bärenreiter, 1952.

\_\_\_\_\_. *Scripta musicología*. Rome: Edizioni de Storia e Letteratura, 1976.

Anglés, Higinio, and José Subirá. *Catálogo musical de la Biblioteca nacional de Madrid*, 3 vols. Barcelona: Instituto Español de Musicología, 1946-1952.

Annala, Hannu, and Heiki Matlik. *Handbook of Guitar and Lute Composers*. Pacific, Missouri: Mel Bay Publications, 2010.

Apel, Willi. *A History of Keyboard Music to 1700*. Bloomington: Indiana University Press, 1972.

\_\_\_\_\_. "The Early Development of the Organ Ricercar." *Musica Disciplina* 3, 2/4 (1949), 139-150.

\_\_\_\_\_. "Early Spanish Music for Lute and Keyboard Instruments." *Musical Quarterly* 20 (July 1934), 289-301.

\_\_\_\_\_. "Neapolitan Links Between Cabezón and Frescobaldi." *Musical Quarterly* 24 (October 1938), 419-437.

\_\_\_\_\_. "Spanish Organ Music of the Early 17<sup>th</sup> Century." *Journal of the American Musicological Society* 15 (Summer 1962), 174-181.

Arias, Enrique Alberto. "Cerone as Historian." *Anuario musical* 58 (2003), 87-110.

Arnold, Corliss. *Organ Literature: A Comprehensive Survey*. Metuchen, NJ: Scarecrow Press, 1995.

Ariztegui, Aurelio Sagaseta, and Mendiola Cruz Labeaga. "La obra del organero Guillaume de Lupe en Navarra: Hipótesis y realidad." *Nassarre* 2/1 (1985).

Arrizabalaga, José María, and Pedro Calahorra Martínez. "La evolución del órgano ibérico en los siglos XVI y XVII a través del órgano del Parroquia de Santa Cruz de Zaragoza." *Revista de musicología* 1, 1/2 (1978), 107-123.



- Audsley, George Ashdown. *Organ Stops and Their Artistic Registrations: Names, Forms, Constructions, Tonalities, and Offices in Scientific Combination*. New York: H.W. Gray Co., 1925.
- Baker, David. *The Organ*. Buckinghamshire, UK: Shire Publications Ltd., 2003.
- Baldelló, Francisco. "Órganos y organeros en Barcelona (siglos XIII-XIX)." *Anuario musical* 1 (1946), 195-237.
- Bermudo, Fray Juan. *Declaración de instrumentos musicales*. Osuna: Juan de Leon, 1555; reprint, Kassel: Barenreiter, 1957.
- Bicknell, Stephen. *The History of the English Organ*. Cambridge: Cambridge University Press, 1999.
- Blume, Friedrich, ed. *Josquin des Prés: Missa de Beata Virgine*, in *Das Choralwerk*, vol. 42. Wolfenbüttel: Mösseler Verlag, 1936.
- Bordas, Cristina. "The Double Harp in Spain from the 16<sup>th</sup> to the 18<sup>th</sup> Centuries." *Early Music* 15/2, Plucked String Issue (May 1987), 148-163.
- Bourligueux, Guy. "Lupe, Guillaume de." *Grove Music Online*. Accessed 18 September 2014. <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/L2232609>.
- Bovet, Guy. "La 'declaración de los órganos...' (1587) de Diego del Castillo ou les quatre orgues de Gilles Brebos à l'église de l'Escorial." *La Tribune de l'orgue: Revue Suisse Romande* 49/2 (1997), 17-26.
- Boyd, Malcolm, and Juan José Carreras, eds. *Music in Spain during the Eighteenth Century*. Cambridge University Press: Cambridge, 1998.
- Bradshaw, Murray C. "Juan Cabanilles: The Toccatas and Tientos." *Musical Quarterly* 59 (April 1973), 285-301.
- \_\_\_\_\_. "The Influence of Vocal Music on the Venetian Toccata." *Musica Disciplina* 42 (1988), 157-198.
- \_\_\_\_\_. "The Toccatas of Jan Pieterszoon Sweelinck." *Tijdschrift van de Vereniging voor Nederlandse Muziekgeschiedenis*. D. 25ste, Afl. 2de (1975), 38-60.
- Bridges, Thomas W. "Trofeo, Ruggier." *Grove Music Online*. Accessed 5 November 2014. <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/28411>>.

- Brown, Howard Mayer. *Instrumental Music Printed Before 1600*. Cambridge, Massachusetts: Harvard University Press, 1965.
- Brown, Howard Mayer and Kristine Forney. "Verius, Joanne." Accessed 2 May 2014.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/29212>.
- Buil, Joaquín Saura. *Diccionario técnico-histórico del órgano de España*. Barcelona: Consejo Superior de Investigaciones Científicas, 2001.
- Bukofzer, Manfred. *Music in the Baroque Era from Monteverdi to Bach*. New York: Norton, 1947.
- Bush, Douglas Earl and Richard Kassel, eds. *The Organ: An Encyclopedia*. New York: Routledge, 2006.
- Cabezón, Hernando de, ed. *Obras de música para tecla, arpa y vihuela*. Madrid: Francisco Sánchez, 1570.
- Cerone, Pietro. *El Melopeo y Maestro*. Naples: Juan Bautista Gargano, 1613.
- Chase, Gilbert. *The Music of Spain*. New York: W.W. Norton and Co., 1941.
- Climent, José. "Organistas valencianos de los siglos XVII y XVIII: Organistas de la Catedral." *Anuario musical* 17 (1962), 179.
- Corry, Mary Jane. "The Keyboard Music of Juan Cabanilles: A stylistic analysis of the published works." Ph.D. diss., Stanford University, 1966.
- \_\_\_\_\_. "Spanish Baroque: The Organ and its Music." *Music* 3/4 (April 1969).
- Cuesta, Ismael Fernández de la. "Un tiento de Peraza entre papeles de San Zoilo de Carrión." *Anuario musical* 56 (2001), 33-45.
- Cyrus, Cynthia, et. al. *Music Education in the Middle Ages and the Renaissance*. Bloomington: Indiana University Press, 2010.
- Dalton, James. "Iberian Organ Music Before 1700," in *The Cambridge Companion to the Organ*, eds. Nicholas Thistlethwaite and Geoffrey Webber. Cambridge: Cambridge University Press, 1999.
- Dart, Thurston, et. al. "Tablature." *Grove Music Online*. Accessed 1 May 2014.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/27338>.

- Doderer, Gerhard. "Portuguese Organ Cases of the Eighteenth Century: Splendor and Effectiveness." *Music in Art* 27, 1/2 (Spring-Fall 2002), 101-115.
- Douglass, Fenner. *The Language of the Classical French Organ: A Musical Tradition Before 1800*. New Haven: Yale University Press, 1965.
- Douglass, Fenner, et al. "Registration." *Grove Music Online*. Accessed 5 November 2014. <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/47609>>.
- Edwards, Lynn. "Schnitger, Arp." *Grove Music Online*. Accessed 22 October 2014. <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/25006>>.
- Esses, Maurice. *Dance and Instrumental Diferencias in Spain During the 17<sup>th</sup> and Early 18<sup>th</sup> Centuries*. Stuyvesant, NY: Pendragon Press, 1992.
- Estudante, Paulo. "A New 17<sup>th</sup>-Century Iberian Source of Instrumental Music." *Early Music* 34/4 (November 2006), 645-660.
- Eubank, Lee Eugene. "The Early Organ Works of José Elías." Unpublished Master's thesis, Indiana University, 1961.
- Fesperman, John. *Organs in Mexico*. Raleigh: The Sunbury Press, 1980.
- . "The Mexican Legacy of Organs." *The Musical Times* 125/1692 (February 1984), 107-109.
- Figueras, José Romeu. "Notas a la bibliografía del músico Pere Alberch Vila." *Anuario musical* 26 (1971), 75-92.
- Fuenllana, Miguel de. *Libro de música para vihuela, intitulado Orphénica lyra*. Seville: Martín de Montedoca, 1554.
- Galán, Andrés Cea. "Estudios: El libro del órgano de Maese Jorge Flamenco: unas memorias de registros y misturas olvidadas en el archivo catedralicio de Sevilla." *Nassarre* 9/1 (1993), 33-77.
- Gavaldá, Miguel Querol. "Corresponales de Miguel Gómez Camargo." *Anuario musical* 14 (1959), 165-178.
- Grenzing, Gerhard. "The Evolution of the Spanish Organ: Some Observations." *ISO Journal*, vol. 7 (2006), 70-81.

- \_\_\_\_\_. "Jordi Bosch: The Unknown Master." *ISO Journal* (2003), 114-143.
- Griffiths, John Anthony. "Fuenllana, Miguel de." *Grove Music Online*. Accessed 1 May 2014.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/10345>.
- \_\_\_\_\_. "Miguel de Fuenllana—Orphénica Lyra." Accessed 15 May 2014.  
[http://www.scoreconversions.com/MFuenllana\\_Intro.html](http://www.scoreconversions.com/MFuenllana_Intro.html).
- \_\_\_\_\_. "The Vihuela Fantasia: A Comparative Study of Forms and Studies." Ph.D. diss., Monash University, Australia, 1983.
- Hansen, B. Jeanne Martinelli. "A Selection of Keyboard Pieces from the *Pensil deleitoso* (1707) of Antonio Martín y Coll." M.A. Thesis, University of Washington, 1958.
- Hastings, Karen Jane. "Francisco Correa de Arauxo's 'Facultad orgánica' with special emphasis on the 'Second Tiento'." D.M.A. diss., Stanford University, 1987.
- Hill, Arthur George. "Medieval Organs in Spain." *Sammelbände der Internationalen Musikgesellschaft* 14 (1913).
- Hoag, Barbara Brewster. "The Performance Practice of Iberian Keyboard Music of the Seventeenth Century." Ph.D. diss., New York University, 1980.
- Holland, Jon Burnett. "Francisco Correa de Arauxo's 'Facultad orgánica': a translation and study of its theoretical and pedagogical aspects." D.M.A. diss., University of Oregon, 1985.
- Howell, Almonte C. "Cabezón: An Essay in Structural Analysis." *Musical Quarterly* 1 (January 1964), 18-30.
- \_\_\_\_\_. "Llusa, Francisco," *Grove Music Online*. Accessed 11 January 2015.  
 <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/16828>>.
- \_\_\_\_\_. "Paired Imitation in 16<sup>th</sup>-Century Spanish Keyboard Music." *Musical Quarterly* 53 (July 1967), 377-396.
- \_\_\_\_\_. "Perandreu, José." *Grove Music Online*. Accessed 4 December 2014.  
 <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/21287>>.
- \_\_\_\_\_. "Symposium on Seventeenth-Century Music Theory: Spain." *Journal of Music Theory* 16, 1/2 (Spring-Winter, 1972), 62-71.

- Howell, Almonte and Juan José Carreras, "Nassarre, Pablo." *Grove Music Online*. Accessed 13 January 2015.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/19595>>.
- Howell, Almonte and Louis Jambou, "Baseya, Joan," *Grove Music Online*. Accessed 10 January 2015.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/02202>>.
- \_\_\_\_\_. "Bruna, Pablo." *Grove Music Online*. Accessed 1 January 2015.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/04161>>.
- \_\_\_\_\_. "Elías, José." *Grove Music Online*. Accessed 5 December 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/08712>>.
- Howell, Almonte C. and Miguel A. Roig-Francolí. "Santa María, Tomás de." *Grove Music Online*. Accessed 2 May 2014.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/24534>.
- Hudson, Barton. "Aguilera de Heredia, Sebastián." *Grove Music Online*. Accessed 4 December 2014.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/00323>.
- \_\_\_\_\_. "Cabanilles, Juan Bautista José." *Grove Music Online*. Accessed 1 January 2015.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/04504>>.
- \_\_\_\_\_. "Martín y Coll, Antonio," *Grove Music Online*. Accessed 5 December 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/17942>>.
- \_\_\_\_\_. "Olagué, Bertolomeu de," *Grove Music Online*. Accessed 8 November 2012.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/50099>>.
- \_\_\_\_\_. "A Portuguese Source of Seventeenth-Century Iberian Organ Music: Manuscript No. 1577, Loc. B, 5, Municipal Library, Oporto, Portugal (Parts I-IV)." Ph.D. diss., Indiana University, 1961.

- \_\_\_\_\_. "Rodrigues Coelho, Manuel," *Grove Music Online*. Accessed 11 January 2015.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/23648>>.
- \_\_\_\_\_. "Sola, Andrés de," *Grove Music Online*. Accessed 8 November 2012.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/26125>.
- \_\_\_\_\_. "Torrelhas, Joseph," *Grove Music Online*. Accessed 7 November 2012.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/2818>.
- Hudson, Barton and Louis Jambou. "Correa de Arauxo, Francisco," *Grove Music Online*. Accessed 4 December 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/06556>>.
- Hughes, John. "The Tientos, Fugas, and Diferencias in Antonio de Cabezón's 'Obras de música para tecla, harpa y vihuela.'" Ph.D. dissertation, Indiana University, 1961.
- Ife, Barry and Roy Truby, eds. *Early Spanish Keyboard Music: An Anthology*. Oxford: Oxford University Press, 1986.
- Irwin, S., ed. *The Dictionary of Pipe Organ Stops*. New York: Schirmer, 1962.
- Jacobs, Charles. "Cabezón's Diferencias." *Music & Letters* 53/3 (July 1972), 351-352.
- \_\_\_\_\_. *La interpretación de la música Española del siglo XVI para instrumentos de teclado*. Madrid, 1959.
- \_\_\_\_\_. "Spanish Renaissance Discussion of Musica Ficta." *Proceedings of the American Philosophical Society* 112/4 (15 August 1968), 277-298.
- \_\_\_\_\_. *Tempo Notation in Renaissance Spain*. Brooklyn: Institute of Mediaeval Musicology, 1964.
- Jambou, Louis. "Cabezón," *Grove Music Online*. Accessed 10 May 2014.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/04511pg1>.
- \_\_\_\_\_. *Evolución del órgano español: Siglos XVI-XVIII*. Universidad de Oviedo, Servicio de Publicaciones, 1988.

- \_\_\_\_\_. "El órgano en la península ibérica entre los siglos XVI y XVII. Historia y estética." *Revista de musicología* 2/1 (enero-junio 1979), 19-46.
- \_\_\_\_\_. *Les origines du tiento*. Bordeaux: Éditions du CNRS, Centre regional de publication, 1982.
- Jarne, José Enrique Ayarra. "Un documento de excepcional interés para la historia de los órganos catedralicios de Sevilla." *Revista de musicología* 4/1 (enero-junio 1981), 159-170.
- Jennings, Theodore. "A Study of 503 Versos in the First and Second Volumes of Antonio Martín y Coll's *Flores de Música*." Ph.D. dissertation, Indiana Univeristy, 1967.
- Johnson, Calvert, ed. *Historical Organ Techniques and Repertoire: An Historical Survey of Organ Performance Practices and Repertoire, Volume I: Spain 1550-1830*. Boston: Wayne Leupold Editions, 1994.
- Kastner, Santiago. *Contribución al estudio de la música Española y Portuguesa*. Lisbon: Atica LDA., 1941.
- \_\_\_\_\_. "Los manuscritos musicales nos. 48 y 242 de la Biblioteca general de la Universidad de Coimbra." *Anuario musical* 5 (1950), 78-96.
- \_\_\_\_\_. "La música en la Catedral de Badajoz (años 1520-1603)." *Anuario musical* 12 (1957), 235-240.
- \_\_\_\_\_. *Música hispanica*. Lisbon: Editorial Atica, 1936.
- \_\_\_\_\_. "Palencia, encrucijada de los organistas españoles del siglo XVI." *Anuario musical* 14 (1959), 115-164.
- \_\_\_\_\_. "Parallels and Discrepancies between English and Spanish Keyboard Music of the Sixteenth and Seventeenth Century." *Anuario musical* 7 (1952), 77-115.
- \_\_\_\_\_. "Sebastián Aguilera de Heredia." *Die Music in Geschichte und Gegenwart*, vol. 1. Kassel: Bärenreiter, 1949-51.
- \_\_\_\_\_. *The Interpretation of 16th and 17th-Century Iberian Keyboard Music*. Stuyvesant, NY: Pendragon Press, 1987.
- \_\_\_\_\_. "Ursprung und Sinn des Medio registro." *Anuario musical* 19 (1964), 57-69.
- Keitt, Andrew W. *Inventing the Sacred: Imposture, Inquisition, and the Boundaries of the Supernatural in Golden Age Spain*. Leiden, The Netherlands: Kooninklijke Brill, 2005.

- Kenyon de Pascual, Beryl. "Clavicordios and Clavichords in 16<sup>th</sup>-Century Spain." *Early Music* 20/4, Iberian Discoveries I (November 1992), 611-630.
- Kinsela, David. "A Taxonomy of Renaissance Keyboard Compass." *The Galpin Society Journal* 54 (May 2001), 352-396.
- Klotz, Hans, et al. "Antegnati." *Grove Music Online*. Accessed 4 November 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/00993>>.
- Kratzenstein, Marilou. "A Survey of Organ Literature and Editions: Spain and Portugal." Ames, IA: Iowa State University Press, 1980.
- Kreitner, Kenneth. "Ministrels in Spanish Churches, 1400-1600." *Early Music* 20/4, Iberian Discoveries I (November 1992), 532-546.
- Laginya, Daniel W. "Manuel Rodrigues Coelho's 'Flores de música': Style and Performance Practice." D.M.A., University of Illinois at Urbana-Champaign, 2004.
- Laird, Paul R. *Towards a History of the Spanish Villancico*. Warren, Michigan: Harmonie Park Press, 1997.
- Lama, Jesús Angel de la. "Órganos y glosa en la época de Antonio de Cabezón (1510-1566), V centenario de su nacimiento." *Nassarre* 26 (2010), 37-78.
- Lawrence, Deborah. "The Music of Social Climbing: Spanish Vihuela Prints as Commonplace Books." *Musical Quarterly* 96/1 (Spring 2013), 137-167.
- Livermore, Ann. *A Short History of Spanish Music*. Duckworth: London, 1972.
- Llorens, José María. "La obra orgánica de José Elías, discípulo de Juan B. Cabanilles." *Anuario musical* 17 (1962), 125-140.
- López-Calo, José. "Corresponsales de Miguel de Irizar." *Anuario musical* 18 (1965), 197-222.
- \_\_\_\_\_. "Corresponsales de Miguel de Irizar (2)." *Anuario musical* 20 (1965), 209-233.
- \_\_\_\_\_. *Historia de la música española: Siglo XVII*, vol. 3. Madrid: Alianza Editorial, S.A., 1983.
- \_\_\_\_\_. *La música en la Catedral de Granada en el siglo XVI*. Granada: Fundación Rodríguez Acosta, 1963, 2 vols.
- Lowinsky, Edward E. "English Organ Music of the Renaissance—I." *The Musical Quarterly* 39/3 (July 1953), 373-395.



- \_\_\_\_\_. "English Organ Music of the Renaissance—II." *The Musical Quarterly* 39/4 (October 1953), 528-553.
- \_\_\_\_\_. "Music in the Culture of the Renaissance." *Journal of the History of Ideas* 15/4 (October 1954), 509-553.
- Marshall, Kimberly. "The Organ in 14<sup>th</sup>-Century Spain." *Early Music* 20/4, Iberian Discoveries I (November 1992), 549-557.
- Martínez, Pedro Calahorra. "El órgano que en 1469 donó el arzobispo Don Juan I de Aragón a su cathedral de San Salvador—La Seo—de Zaragoza." *Revista de musicología* 6, 1/2 (enero-diciembre 1983), 165-212.
- \_\_\_\_\_. *Historia de la Música en Aragón*. Librería General: Zaragoza, 1977.
- \_\_\_\_\_. *La música en Zaragoza en los siglos XVI y XVII*, Vol. 1. Zaragoza, 1977.
- \_\_\_\_\_. "Lo que he gastado en el órgano que se ha hecho en la iglesia de San Miguel de Daroca, año 1567." *Revista de musicología* 4/1 (enero-junio 1981), 171-193.
- Meeùs, Nicolaus. "Short octave." In *Grove Music Online*. Accessed 1 December 2013.  
<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/25663>.
- Menéndez, Ezequiel Martín, "Historic Pipe Organs in Argentina: A Hidden Treasure." D.M.A. diss., Boston University, 2006.
- Merino, Luis Felix. "The Keyboard Tiento in Spain and Portugal from the 16<sup>th</sup> to the Early 18<sup>th</sup> Century." M.A. Thesis, University of California, Santa Barbara, 1968.
- Milán, Luis D. *El Cortesano: Libro de motes de damas y caballeros*. Madrid: Imprenta y Estoreotipia de Aribau, 1874.
- Milán, Luys. *Libro de música de vihuela de mano. Intitulado El Maestro*. Valencia, 1536.
- Moll, Jaime. "Documentos para la historia de la música de la cathedral de Toledo." *Anuario musical* 13 (1958), 159-166.
- Moll, Melissa K. "A Performer's Guide to Keyboard Notation from the Middle Ages to the Beginning of the Baroque." D.M.A. diss., The University of Iowa, 2006.
- Morrow, Michael. "The Renaissance Harp: The Instrument and Its Music." *Early Music* 7/4, Keyboard Issue I (October 1979), 499-510.
- Muñoz, L. Villalba. *Antología de organistas clásicos*. Madrid, 1914; rev. 1971 by S. Rubio.

- Nelson, Bernadette. "A Spanish inquisition." *Choir & Organ* 7/5 (September 1999), 26. Academic Search Complete, EBSCO host (accessed 14 December 2012).
- Newman, William S. "The Instrumental Background of the Early Baroque Sonata." *Bulletin of the American Musicological Society*, 9/10 (June 1947), 6-8.
- \_\_\_\_\_. *Música en Zaragoza: Siglos XVI-XVII: Polifonistas y Ministriles*. Zaragoza: Institución Fernando el Católico, 1977.
- Oldham, Guy and Umberto Pineschi. "Hermans, Willem." *Grove Music Online*. Accessed 12 November 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/12867>>.
- Ortiz, Diego. *Trattado de glosas sobre clausulas y otras géneros de puntos en la Musica de Violones* (Rome, 1553). Ed. By Max Schneider. Cassel: Bärenreiter, 1936.
- Ouseley, F.A. Gore. "On Some Italian and Spanish Treatises on Music of the Seventeenth Century." *Proceedings of the Musical Association*, 8<sup>th</sup> Sess., (1881-1882), 83-98.
- Owen, Barbara. *The Registration of Baroque Organ Music*. Bloomington: Indiana University Press, 1997.
- Owen, Barbara, et al. "Organ." *Grove Music Online*. Accessed 4 November 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/44010pg5>>.
- Owens, Jesse Ann. *Composers at Work: The Craft of Musical Composition 1450-1600*. Oxford: Oxford University Press, 1997.
- Parkins, Robert. "Keyboard Fingering in Early Spanish Sources." *Early Music* 11/3 (July 1983), 323-331.
- \_\_\_\_\_. "Spain and Portugal," in *Keyboard Music Before 1700*, ed. Alexander Silbiger. New: Schirmer Books, 1995.
- Parkinson, Stephen, ed. *Cobras e Son: Papers on the Text, Music, and Manuscripts of the 'Cantigas de Santa Maria.'* The European Humanities Research Centre: University of Oxford, 2000.
- Pacheco, Francisco. *Libro de descripción de verdaderos Retratos de Illustres y Memorables varones... En Sevilla 1599*. Facsim. Ed. Seville: Rafael Tarascó, 1881-1885.

- Pedrell, Felipe. *Catálech de la Bibioteca Musical de la Diputació de Barcelona*. 2 vols. Barcelona: Palau de la Diputació, 1908.
- \_\_\_\_\_. *Emporio científico é histórico de organografía musical antigua española*. Barcelona: J. Gili, 1901.
- Pepe, Edward. "A Spanish Organ for the New World: Jorge de Sesma in the Cathedral of Mexico City." *The Tracker—Journal of the Organ Historical Society* 51/1 (Winter 2007), 127-162.
- Pérez, Mariano. *Diccionario de la música y los músicos III (P-Z). Colección Fundamentos* 89. Madrid: Ediciones Istmo, S.A., 2000.
- Phillips, William D. Jr. and Carla Rahn Phillips. *A Concise History of Spain*. Cambridge: Cambridge University Press, 2010.
- Pineschi, Umberto. "Bossi." *Grove Music Online*. Accessed 12 November 2014. <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/40942>>.
- Preciado, Dionisio. "En torno al organist Francisco de Peraza I (1564-1598) y a 'su' tiento de medio registro alto de tono I." *Nassarre* 14/2 (enero 1998), 299-311.
- \_\_\_\_\_. *Los quiebro y redobles en Francisco Correa de Aruajo, 1575/77-1654: estudio sobre los adornos de la música de tecla Española de principios del s. XVII*. Madrid: Editorial Alpuerto, 1973.
- Randel, Don Michael, ed. "Segni, Julio." *The Harvard Biographical Dictionary of Music*. Cambridge, MA: Harvard University Press, 1996.
- \_\_\_\_\_. "Vila, Pedro Alberch." *The Harvard Biographical Dictionary of Music*. Cambridge, MA: Harvard University Press, 1996.
- Rees, Owen. "São João, Gabriel de." *Grove Music Online*. Accessed 11 January 2015. <<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/41438>>.
- Reese, Gustave. "The Repertoire of Book II of Ortiz's *Tratado*." *The Commonwealth of Music*. New York: The Free Press, 1965.
- Ridler, Ben and Louis Jambou. "Tiento." In *Grove Music Online*. Accessed 7 November 2012. <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/27944>.

- Ripoll, Miguel Bernal. "Las contras de los órganos barrocos del país Valenciano. Reflexiones sobre su empleo en la música de Cabanilles." *Revista de musicología* 19, 1/2 (enero-diciembre 1996), 133-152.
- Robledo, Luis. "Questions of Performance Practice in Philip III's Chapel." *Early Music* 22/2, Iberian Discoveries II (May 1994), 198-218.
- Roig-Francoli, Miguel Angel. "Compositional theory and practice in mid-sixteenth-century Spanish instrumental music: The "Arte de tañer fantasia" by Tomás de Santa María and the music of Antonio de Cabezón." Ph.D. diss., Indiana University, 1990.
- \_\_\_\_\_. "Modal Paradigms in Mid-Sixteenth-Century Spanish Instrumental Composition: Theory and Practice in Antonio de Cabezón and Tomás de Santa María." *Journal of Music Theory* 38/2 (Autumn 1994), 249-291.
- \_\_\_\_\_. "Playing in Consonances: A Spanish Renaissance Technique of Chordal Improvisation." *Early Music* 23/3, Iberian Discoveries III (August 1995), 461-471.
- Saldívar, Gabriel. "Una tablatura Mexicana," *Revista musical mexicana* 2/2 (21 July 1942), 36-39; 2/3 (7 August 1942), 65-66; 2/5 (9 September 1942), 110-111.
- Santa María, Tomás de. *Libro llamado Arte de tañer Fantasia, assi para Tecla como para Vihuela*. Valladolid: Francisco Fernández de Córdova, 1565.
- Schmitt, Stephan. "Antonio de Cabezón y el comienzo de la música didáctica para tecla con valor artístico." *Anuario musical* 66 (enero-diciembre 2011), 119-136.
- Shannon, John R. *The Evolution of Organ Music in the 17<sup>th</sup> Century: A Study of European Styles*. Jefferson, NC: McFarland, 2012.
- \_\_\_\_\_. *Understanding the Pipe Organ: A Guide for Students, Teachers and Lovers of the Instrument*. Jefferson, North Carolina: McFarland, 2009.
- Sharp, G.B. "Antonio de Cabezón (1510-1566)." *The Musical Times* 107/1485 (November 1966), 955-956.
- \_\_\_\_\_. "Antonio de Cabezón: 2." *The Musical Times* 107/1486 (December 1966), 1053-1055.
- Sherman, Bernard D. *Inside Early Music: Conversations with Performers*. Oxford: Oxford University Press, 2003.
- Silbiger, Alexander, ed. *Keyboard Music before 1700*. Routledge: New York, 2004.

- Speer, Klaus. "Tonus designations in the tientos of Juan Cabanilles." *Anuario musical* 17 (1962), 31-36.
- Stein, Louise K. *Songs of Mortals, Dialogues of the Gods: Music and Theatre in Seventeenth-Century Spain*. Clarendon Press: Oxford, 1993.
- Stein, Louise K., et al. "Durón, Sebastián." *Grove Music Online*. Accessed 9 November 2012. <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/08401>.
- Stevenson, Robert. "The First Dated Mention of the Sarabande." *Journal of the American Musicological Society* 5/1 (Spring 1952), 29-31.
- \_\_\_\_\_. "The First New World Composers: Fresh Data from Peninsular Archives." *Journal of the American Musicological Society* 23/1 (Spring 1970), 95-106.
- \_\_\_\_\_. "Francisco Correa de Arauxo: New light on his career." *Revista musical chilena*, 22/103 (1968), 7-42.
- \_\_\_\_\_. *Juan Bermudo*. The Hague: Martinus Nijhoff, 1960.
- \_\_\_\_\_. "El Melopeo tractado de música theórica y práctica by Pedro Cerone," *Journal of the American Musicological Society* 24/3 (Autumn 1971), 477-485.
- \_\_\_\_\_. "Peraza." *Grove Music Online*. Accessed 7 November 2012. <http://www.oxfordmusiconline.com.www2.lib.ku.edu:2048/subscriber/article/grove/music/21289pg2>.
- \_\_\_\_\_. *Spanish Cathedral Music in the Golden Age*. Berkeley: University of California Press, 1961.
- \_\_\_\_\_. *Spanish Music in the Age of Columbus*. The Hague M. Nijhoff, 1960.
- Stevlingson, Norma Jean. "The Stylistic Development of the Tiento on the Iberian Peninsula from Cabezón to Cabanilles." D.M.A. diss., University of North Texas, 1974.
- Subirá, José. *Historia de la música Española e hispanoamericana*. Salvat Editores: Spain, 1953.
- \_\_\_\_\_. "La música en la Real Capilla madrileña y en el Colegio de Niños Cantorcicos: Apuntes históricos." *Anuario musical* 14 (1959), 207-230.
- \_\_\_\_\_. "Pablo Bruna." *Die Music in Geschichte und Gegenwart*, vol. 2. Kassel: Bärenreiter, 1952.

- Taliavini, Luigi Ferdinando. "The Art of 'Not Leaving the Instrument Empty': Comments on Early Italian Harpsichord Playing." *Early Music* 11/3 (July 1983), 299-308.
- Taruskin, Richard, ed. *Music from the Earliest Notations to the Sixteenth Century*. New York: Oxford University Press, 2009.
- Van de Pol, Wijnand "Some thoughts on the divided keyboard and divided stops. Where did it start?" *Nassarre* 22 (2006), 592- 596.
- Van Der Meer, John Henry. "The Keyboard Works in the Vienna Bull Manuscript." *Tijdschrift der Vereeniging voor Noord-Nederlands Muziekgeschiedenis*, Deel 18, 2de Stuk (1957), 72-105.
- Van Ree Bernard, Nelly. *Interpretation of 16<sup>th</sup>-Century Iberian Music on the Clavichord*. Buren: Frits Knuf Publishers, 1989.
- Venegas de Henestrosa, Luys. *Libro de cifra nueva para tecla, harpa, y vihuela*. Alcalá de Henares: Joan de Brocar, 1557.
- Vente, Maarten A. *Die brabantse Orgel*. Paris: H.J. Paris, 1958.
- \_\_\_\_\_. "Dedicado a Antonio de Cabezón (1510-1566) en el IV Centenario de su muerte. 'The Family Brebos, Organ builders from Lier and Antwerp.'" *Anuario musical* 21 (1966), 39-44.
- \_\_\_\_\_. "Mitteilungen über iberische Registrierkunst unter sesonderer Berücksichtigung der Orgelkompositionen des Juan Cabanilles." *Anuario Musical* 17 (1962), 41-62.
- \_\_\_\_\_. "Some Aspects of Iberian Organ Building." *Bulletin of the International Society of Organ Builders* 4 (October 1970), 287-302.
- Veroli, Claudio di. *On the Origin and Original Specification of the Baroque Organ in the Buenos Aires Cathedral*. Bray, 2002.
- Villalba, P. Luis. *La Ciudad de Dios*, vol. 9 (1886).
- Waanders, Nicolaas, "Willem Hermans in Pistoia: Some Stylistic Considerations." *The Organ Yearbook* 23 (1992), 1-36.
- Ward, John. "The Editorial Methods of Venegas de Henestrosa." *Musica Disciplina*, 6, 1/3 (1952), 105-113.

- \_\_\_\_\_. "Parody Technique in 16<sup>th</sup>-Century Instrumental Music." *The Commonwealth of Music*. New York: The Free Press, 1965.
- \_\_\_\_\_. "The Use of Borrowed Material in 16<sup>th</sup>-Century Instrumental Music." *Journal of the American Musicological Society* 5/2 (Summer 1952), 88-98.
- Whiteside, John Porter. "A Stylistic Analysis of the Fugas, Tientos, and Diferencias of Antonio de Cabezón and an Examination of His Influence on the English Keyboard School." D.M.A. diss., Boston University, 1994.
- Williams, Peter. *The European Organ: 1450-1850*. Bloomington: Indiana University Press, 1996.
- Wyly, James. "The Pre-Romantic Spanish Organ: Its Structure, Literature, and Use in Performance." D.M.A. diss., University of Missouri at Kansas City, 1964.
- Wyly, James and Susan Tattershall. *The Brebos Organs at El Escorial*. Richmond, Virginia: The Organ Historical Society, 2007.
- Young, William. "Bariolla, Ottavio." *Grove Music Online*. Accessed 5 November 2014.  
<<http://www.oxfordmusiconline.com.www2.lib.ku.edu/subscriber/article/grove/music/02061>>.
- \_\_\_\_\_. "Keyboard Music to 1600: II. *Musica Disciplina* 17 (1963), 163-193.
- Zoutendijk, trans. Chris Bragg. 'Le Cornet de Flandres' – The development of the Cornet, and of divided stops in the Southern Netherlands until c 1800. Accessed 14 September 2014.  
[http://www.orgelhistorie.org/wpcontent/uploads/2010/04/cornetdeflandres\\_summary.pdf](http://www.orgelhistorie.org/wpcontent/uploads/2010/04/cornetdeflandres_summary.pdf).

## Editions of Spanish and Portuguese Music

### Collections and Anthologies:

- Alvarez, José, ed. *Colección de obras de órgano de organistas españoles del siglo XVII: manuscrito encontrado en la cathedral de Astorga*. Madrid, 1970.
- Anthology of Spanish Organists of the 17<sup>th</sup> Century*, Melville, NY: Belwin-Mills, n.d.

Apel, Willi, ed. *Corpus of Early Keyboard Music*, vol.31, ed. 1975 (reprint 1993), and vol. 48-1, ed. Nelson Lee, 1999.

Dalton, James, ed. *Faber Early Organ Series*, vols. 4 (c 1550-1620) and 5 (c 1620-1670). London: Faber Music Limited, 1987.

Galdos, J., ed., *Tonos de palacio y canciones communes*. Madrid, 1984-6.

Johnson, Calvert, ed. *Historical Organ Techniques and Repertoire, vol.1: Spain 1550-1830*. Boston: Wayne Leupold Editions, 1994.

Kastner, M.S., ed. *Cravistas Portuguezas*. Mainz: Schott, vol. 1 (1935) and vol. 2 (1950).

\_\_\_\_\_. *Silva Ibérica de Música para tecla*. Mainz: Schott, vol. 1 (1954) and vol. 2 (1965).

Pedrell, Felipe. *Antología de organistas clásicos españoles*, 2 vols. Madrid: Ildefonso Alier, n.d.

\_\_\_\_\_. *Organistas Clásicos Españoles*, 2 vols. Madrid: Unión Musical Española, n.d. (c 1908).

*Portugaliae Música*, vols.1, 3, 10, 11, 19, 25, 34; Lisbon: Fundação Calouste Gulbenkian, various editors and dates.

### **Composer-Specific Collections and Complete Works Editions:**

Aguilera de Heredia. Sebastián, *L'Oeuvre d'Orgue*, ed. Dom Claude Gay. France: La Flèche, vol. 1 (1979) and vol. 2 (1980).

Brocarte, Antonio. *Antonio Brocarte (1629-1696). 4 tientos para órgano, estudio y transcripción*, ed. Lothar Siemens Hernández. Madrid: Real Musical, 1980.

Bruna, Pablo. *Obras Completas para órgano de Pablo Bruna*, ed. Julián Sagasta Galdós. Zaragoza: Institución Fernando el Católico de la Excma. Diputación Provincial, 1979.

\_\_\_\_\_. *Obras Completas para Órgano de Pablo Bruna*, ed. Carlo Stella. Zaragoza: Institución Fernando el Católico de la Excma. Diputación Provincial, pub. no. 1.614, 1993.

Cabanilles, Iohannis. *Musici Organici Iohannis Cabanilles*, 4 vols., ed. Higinio Anglés. Barcelona: Biblioteca de Cataluña, 1927-1936.



- \_\_\_\_\_. *Música de Tecla Valenciana. J. Bta. Cabanilles*, 4 vols., ed. Julián Sagasta Galdós. Valencia: Edicions Alfons el Magnànim, 1986-1993.
- Cabezón, Antonio de. *Antonio de Cabezón: Tientos und Fugen*, ed. M. S. Kastner. Mainz: Schott, 1948.
- \_\_\_\_\_. *Obras de Música para Tecla, Arpa y Vihuela* (Madrid, 1578), 3 vols. ed. Higinio Anglés. Barcelona: Instituto Español de Musicología, 1982.
- \_\_\_\_\_. *Obras de música para tecla, arpa y vihuela*, ed. Felipe Pedrell in *Hispaniae Schola Música Sacra*, vols. III, IV, VII, VIII. Barcelona: J.G. Pujol, 1895-98.
- Coelho, Manoel Rodriguez, *Five Tentos*, ed. M. S. Kastner. Mainz and Leipzig: Schott, 1936.
- \_\_\_\_\_. *Flores de música pera o instrumento de tecla y harpa*, vol. I, trans. And ed. M.S. Kastner in *Portugaliae Música*. Lisbon: Fundação Calouste Gulbenkian, 1959.
- Correa de Arauxo, Francisco. *Libro de tientos y discursos de música practica, y theorica de órgano intitulado facultad orgánica* (Alcalá, 1626), 4 vols., ed. Guy Bovet. Bologna: Ut Orpheus Ed., 2007.
- \_\_\_\_\_. *Libro de tientos y discursos de música practica, y theorica de órgano intitulado facultad orgánica* (Alcalá, 1626), 2 vols., ed. Santiago Kastner. Barcelona: Instituto Español de Musicología, 1948.
- \_\_\_\_\_. *Libro de tientos y discursos de música practica, y theorica de organo, intitulado facultad orgánica*, 3 vols., ed. Miguel Bernal Ripoli. Madrid: Sociedad Española de Musicología, 1999-2005.
- Elías, José. *Obras completas*, ed. José M. Llorens, Julián Sagasta Galdós and Montserrat Torrent. Barcelona: Biblioteca de Cataluña, vol. 1A (1971), vol. 1B (1975), vol. 2A (1981), vol. 2B (1986).
- Jiménez, José. Complete works are in CEKM vol. 31, ed. Willi Apel, 1975 (reprint 1993).
- Lidón, José. *José Lidón: La música para teclado. Edición crítica*. Madrid: Edición de Dámaso García Fraile, vol. 1 (2002), vol. 2 (2004).
- \_\_\_\_\_. *José Lidón: Obras completas para órgano*, ed. D. Gracia Fraile and Guy Bovet. Fleurier, 1996.
- Martín y Coll, Antonio. *Tonos de Palacio y Canciones Comúnes*, ed. Julián Sagasta Galdós. Madrid: Unión Musical Española, 1984.

Menalt, Gabriel. *Obras Completas para Organo*, vols. 1 and 2. Mollerussa [Spain]: Scala Aretina Ediciones Musicales, 2002.

Mudarra, Alonso. *Tres libros de música en cifra para vihuela*, in *Monumentos de la música española*, vol. 7, ed. Emilio Pujol. Barcelona: Instituto Española de Musicología, 1949.

Nassarre, Pablo. Extant works are in *Colección de obras de órgano de organistas españoles del siglo XVII* mentioned above.

Venegas de Henestrosa, *Libro de cifra nueva . . .*, in *La música en la corte de Carlos V*, vol. 2 of *Monumentos de la música Española*, ed. Higinio Anglés. Barcelona, Instituto Española de Musicología, 1944.

## Appendix I: Glossary of Spanish and Portuguese Terms

All terms are Spanish unless otherwise noted; Portuguese words are designated by [P] and Catalan terms by [C].

**alto:** treble, use synonymously with *tiple* in Spanish and Portuguese works for divided keyboard.

**ambas as mãos, de** [P]: for both hands, Portuguese designation for *lleno* compositions wherein both hands are of equal importance.

**baixo** [P]: bass.

**bajete:** 4' reed stop, often horizontal, generally found in the bass half of the keyboard.

**bajón (bajo), baxon:** a 8' or 16' chorus reed stop similar to the *fagot*; can also be used to denote the left hand solo of a *medio registro* composition, i.e. *medio registro de baxon* or *medio registro de bajo*.

**bajoncillo, baxoncillo:** a 4' façade reed, usually employed in the bass half of the divided keyboard. Similar in nature to the *clarín*, but narrower. Also found using the Portuguese term *baixonilho*.

**bajos de clarín:** an 8' trumpet, occasionally found in the pedal of eighteenth-century Spanish organs.

**bombarda:** a 16' undivided chorus reed stop, most often found in the manual, but occasionally occurring in the pedal.

**bordón, bordão** [P]: flute stops of various pitches, usually of the stopped variety; can also be found until the names *tapado* or *violón*.

**cadireta, cadira, cadereta:** in its earliest usages the term was analogous with *Rückpositiv*; later, the word was used to describe a second division in a two- or three-manual instrument, sometimes in the main case and under expression (a *cadireta expresiva*). Large-scale instruments could often have up to three *cadiretas*—a *cadireta exterior* (outside of the main case), a *cadireta interior* (inside the case, often under expression), and a *cadireta de la espalda* (on the façade of the organ).

**campanas:** bells; an auxiliary toy stop.

**campanillas:** little bells, similar to a *Zimbelstern*.

**cara:** face; stops bearing the designation *de la cara* have pipes found in the façade of the organ.

**cheo, de [P]:** Portuguese equivalent of the Spanish *lleno*; may imply work not utilizing divided stops and/or the use of a mixture stop.

**chiflete:** a mutation stop of 1 1/3' pitch; the Spanish version of the Dutch and German *sifflöte*.

**chirimía, xirimia:** a 4' reed stop, similar in nature to the *schalmei*, *bajoncillo*, or *clarion*; the stop can be found in either the treble or the bass half of the keyboard.

**chirumbelada:** a term meaning any "high" stop, most likely used to denote 8' and 2', 8' and 1', or 8' and *cymbel* (a high-pitched mixture) together.

**címbala, zímbala:** a high-pitched mixture, most often comprised of three to five ranks.

**clarín:** an 8' façade trumpet that is occasionally divided; Joseph de Hechevarría claims to have invented the stop c 1670.

**clarín claro:** "bright" or "clear" trumpet; a *clarín* found at the 8' or 4' pitch.

**clarín de bajos:** an 8' façade trumpet found in the bass of divided manual instruments.

**clarín de batalla:** 8' horizontal military or field trumpet stop; synonymous with the *clarín de campaña*.

**clarón:** a mixture comprised of wide-scaled *nazardos*, often found in the bass half of divided manuals.

**compuestas, compuestas de lleno:** mixture stop (principal-scaled) common to sixteenth- and seventeenth-century Spanish organs.

**compuestas de nazardos:** a *nazardos* mixture usually made up of three or more ranks of pipes.

**contras:** the term could either refer to the pedalboard, which usually consisted of less than twelve notes, or the rank of pipes sounded by the pedals. When referring to the latter, the *contras* were open wood pipes at the 16' or 8' pitch (*contras de 26* or *contras de 13*). In sixteenth- and seventeenth-century instruments the *contras* might consist of more than one rank of pipes that

were permanently connected; late-eighteenth-century instrument slowly incorporated separate pedal stops.

**corneta:** Spanish *cornet* originating in the sixteenth century; a compound solo stop, often containing three, five, or more ranks and always containing a tierce. It was usually found in the treble of Spanish organs.

**corneta clara:** a *cornet* that includes the *decimonovena* (nineteenth) and the *vigesimalsegunda*; the *tolosana* could fall into this category of *corneta* stops.

**decinovena, dezinovena:** nineteenth, 1 1/3'. Generally a principal-scale, with the exception of the *decinovena nazarda* (a flute stop); sometimes found in the bass half of the keyboard only.

**diezisetena:** tierce, 1 3/5'.

**docena, dozena:** twelfth, 2 2/3'. Usually scaled as a principal stop, with the exception of the *nazardo en docena* (a flute stop).

**docena y quincena:** twelfth and fifteenth contained in one register.

**docequincenovena:** twelfth, fifteenth, and nineteenth in one register.

**dulzaina, dulzayna:** commonly-used 8' reed stop that is often divided; similar to the *orlo* or *orlos* in sixteenth and seventeenth-century organs.

**fachada:** façade.

**fagot:** a narrow-scaled reed, most often found at the 8' pitch.

**flauta:** flute.

**flauta traversera, flauta alemana, flauta dulce:** A celeste, most often comprised of two or three ranks; the *flauta traversera* was made of wood, while the *flauta alemana* and *flauta dulce* were metal.

**flautadillo:** an open 4' gentle principal.

**flautado, flautat [C]:** principal.

**flautado mayor:** 16' principal.

**flautat de la cara [C]:** 16' or 8' principal found in the façade of the organ.

**flautat major [C]:** 16' principal.

**gaita, gaitilla, gaytilla:** a bagpipe stop, wherein the drawing of the stop allows airflow to the pipes resulting in a drone.

**hilera:** rank; often used in the designation of mixture stops, i.e. *lleno de tres hileras* (mixture of three ranks).

**juego:** stop.

**lengüetería:** reedwork.

**lleno, (plé in Catalán; chejo in Portuguese):** 1) the principal chorus or *órgano pleno*; 2) registers that were found throughout the entire keyboard compass (not *medio registros*) were most often denoted as *registros llenos* or *registros enteros*; 3) a principal-scaled mixture.

**mixtura:** the term could either refer to a variety of registrational combinations employing the use of mixtures or was used to denote a small, low-pitched compound stop (smaller than the *lleno* and of lower pitch than the *címbala*).

**nasart** [C]: used to denote a registrational combination using the  $2\frac{2}{3}'$  or  $1\frac{1}{3}'$ .

**nazarda mayor:** a wide-scaled quint stop found at the  $2\frac{2}{3}'$  or  $5\frac{1}{3}'$  pitch.

**nasardo:** a mutation stop found at various pitches, with the most common being  $2\frac{2}{3}'$  or  $2'$ .

**nazardos:** open, metal flue pipes that were scaled more like flutes than principals and were used in the *corneta*; numerous *nazardos* of various pitches could be combined to form their own *nazardos* chorus.

**nazardos compuestos:** a compound stop comprised of *nazardos* pipes; see *nazardos*.

**octava:** a  $4'$  principal.

**octava de nasardo:** this term could refer either to a *nasardo* at the  $4'$  pitch or a mutation stop of  $1\frac{1}{3}'$  pitch.

**octava real:** a designation sometimes given to the  $4'$  principal of the *órgano mayor*; if the organ should contain two *octava* stops, the *octava real* will most often be the louder of the two and will be used as part of the *lleno* configuration.

**octava tapada:** a stopped  $4'$  flute similar in sound to a *Gedeckt*.

**órgano principal, órgano grande:** the Great organ; usually the top keyboard of a Spanish instrument.

**orlo, orlos:** an 8' or 16' *regal*; early examples could be found inside the main case of the organ, while by the early eighteenth century many were horizontal reeds located in the organ's façade; such stops are similar in sound to the *krumhorn* of German and Dutch builders.

**pájaros:** a stop that imitates a bird's warble; a register that, when the stop is pulled, allows air flows to two or more metal pipes, the ends of which are submerged in water or oil.

**palma:** a unit of measurement for pipe lengths that often varied depending on locality (ultimately resulting from the inability to standardize a measurement taken from the distance between the thumb and little finger of a fully-extended hand). In general, however, a *palm* ranged from 7 5/8 to 9 3/4 inches; as such, a pipe of anywhere from 10 to 13 palms would most often be an 8' pipe.

**pífano, píphanos:** an open or stopped flute at the 4' or 2' pitch.

**quincena, quinzena:** fifteenth; a 2' principal stop.

**regal, regalía:** a generic name for a variety of different *regal* stops, including the *orlo*, *dulzaína*, *viejas*, *voz humana*, *violín*, etc.; the term could also be used, albeit rarely, to denote a specific kind of *regal* with short resonators.

**registro, registro [P]:** stop or register.

**ruyseñor:** an auxiliary toy stop similar in construction to the *rossignol* and the *pájaros*; see *pájaros*.

**simbalet, simbolet, cimbolet [C]:** Catalan terms for the *címbala*; see *címbala*.

**sobrecímbala, sobrezímbala:** a wide-scaled mixture with a pitch base a fourth or fifth higher than the *címbala*.

**tambor, tambores, tabal:** drum stops that were found in Spanish organs from the seventeenth and eighteenth centuries; the stops each allowed air to flow into two wooden pipes—tuned at the interval of a fifth—that imitated kettledrums.

**tapada, tapadillo:** usually a 4' stopped flute.

**temblante, temblor:** *tremolo*; these stops were introduced to Spanish organs in the sixteenth century and many organs had several *temblantes* of varying strength levels.

**tenor de chirimía:** an 8' *clarín* of very narrow scale.

**tierza:** tierce.

**tolosana:** a *corneta* of narrow scale, usually made up of three ranks at 2 2/3', 2', and 1 3/5' pitches.

**trompeta, tromba:** a generic term for numerous reed (trumpet) stops. Some of the most common Spanish *trompetas* include the following:

**trompeta alta:** a 4' chorus trumpet.

**trompeta bastarda:** a trumpet, sometimes *en chamade*, with half-length resonators; it could also be found under the designation *trompeta recortada*.

**trompeta batalla:** powerful 8' "battle" trumpet, sometimes *en chamade* and occasionally located in only the bass of a divided keyboard.

**trompeta en eco:** a small-scale trumpet with short-length resonators that is under expression; sometimes this stop is found only in the bass of a divided keyboard.

**trompeta imperial:** a wide-scaled trumpet, often *en chamade*, that is found at the 32' or 16' pitch; it is sometimes only located in the treble half of a divided manual.

**trompeta magna:** similar to the *trompeta imperial*; a powerful 16' façade trumpet that is generally found in the treble half of a divided keyboard.

**trompeta real:** an 8' interior trumpet with full-length resonators (the length of the resonators being implied by *real*); the pipes are of moderate scale and power and can be used as either a chorus or a solo reed.

**veintidozena, vintydozena:** twenty-second.

**viejos, viejas:** *regal* stops with stopped resonators and a thin, nasal tone.

**violeta, violetas:** a 2' trumpet found in the façade, most popular in the eighteenth century; often it was only found in the bass half of the divided keyboard. It could also be found under the names *chirimía alta* and *trompeta en quincena*.



**violeta alta:** a 1' trumpet.

**violín, violines:** a 4' *regal* sometimes found in the façade of Spanish organs.

**voz humana, voce umana:** a *regal* stop that can be found at 16', 8', and 4' pitches; in the sixteenth century the name could be used to designate any *regal* (similar to the *dulzaína*); it was employed as both a solo stop, as well as a chorus stop. In some cases the stop could also be a *céleste* made up of principal pipes.

## Appendix II: Organ Contracts and Documents

### **Contract for the Guillaume de Lupe Organ, Iglesia de Santa Cruz (Zaragoza), 15 July 1567.<sup>1</sup>**

Capitulación del órgano construido por Guillaume de Lupe

Capitulación y Concordia hecha entre el muy ilustre señor don Juan Francés de Ariño, señor de la Baronía de Osera, y el magnífico Pedro de Mondragón, y Guillaume de Lupe, organist, acerca del órgano que dicho Guillaume ha de hacer en la iglesia de Santa Cruz de la presente ciudad de Zaragoza.

Et primero, es pactado y concordado entre las dichas partes que el dicho Guillaume haya de hacer un órgano para dicha iglesia de Santa Cruz, que sea la diferencia mayor de sies palmos y medio.

Item, haya de tener una flauta tapada unisonus del flautado.

Item, otra octava de tres palmos.

Item, una quinta gruesa.

Item, otra diferencia para el lleno, que llevará dos caños por punto.

Item, una dulzaina con su diferencia partida.

Item, un temblante.

Item, más ha de hacer la caja nueva con cinco castillos con sus molduras y frontispicios, todo nuevo.

Item, es pactado entre las dichas partes que el dicho órgano hecho como arriba se dice, esté a conocimiento de dos o tres músicos de la presente ciudad.

Item, es pactado entre las dichas partes que el dicho Guillaume haya de dar hecho el dicho órgano arriba se dice, para el día de la Invención de la Cruz, que cae el tercer día del mes de mayo del año primero venidero de mil quinientos sesenta y ocho.

Item, es pactado entre las dichas partes que cumpliendo el dicho Guillaume todo lo que de él se aguarda, como arriba se dice, le hayan de dar y pagar al dicho Guillaume la suma y cantidad de cinco mil cien sueldos; la cual cantidad prometen y se obligan los dichos don Juan Francés de Ariño y Pedro de Mondragón a dar y pagar simul et in solidum al dicho Guillaume, hecho y cumplido lo que toca al dicho Guillaume como dicho es; a lo cual tener y cumplir los dichos don Juan Francés de Ariño y Pedro de Mondragón obligaron simul et in solidum sus personas y bienes

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<sup>1</sup> Pedro Calahorra Martínez, *La música en Zaragoza en los siglos XVI y XVII* 1 (Zaragoza, 1977), 233.

largamente con todos los capitulos y seguridades en semejantes actos poner acostumbrados.

(Protocolo del notario Cristóbal Navarro, 26 julio 1567, fol. 456. Archivo Histórico Provincial de Zaragoza).

### **Baltasar de Villada's *Libro de registros y misturas* for the Seville Cathedral Organ, 1584.<sup>2</sup>**

Libro de el gobierno de los registros y misturas que el órgano nuevo de la sancta yglesia mayor de Sevilla tiene; fecho por Baltasar Villada, año de el Nacimiento del Señor de mil y quinientos y ochenta y quarto años, 1584.

Este órgano grande tiene veynte y quarto medios registros los doze de madera y los otros doze de hierro que reducidos a registros interos son no más de doze registros, y ansí los de mano yzquierda gobiernan el medio juego desde la primera tecla de abaxo hasta csolfaud agudo, y los otros registros de la mano derecha gobiernan el otro medio juego desde delasolre agudo hasta la postrera tecla de arriba. Todos estos registros llevan hasta doze numeros, de cuenta de guarismo, así los de la mano derecha como los de la mano yzquierda. Porque son compañeros los unos de los otros, pues sacados todos estos registros del órgano grande hazia fuera no suena ninguno, y metidos hazia dentro suenan todos. Y advierta el que los echare que siempre a de meter de entrambas partes los registros de los números semejantes, para que sea el registro entero y suene igual la mixtura que se echare.

En los registros de madera que son seis enteros están todos los flautados y flautas, tapadas y destapadas, unas in Unisonas del flautado principal, y dos en octavas, las unas tapadas y las otras abiertas, otras dos flautas quizenas, las unas tapadas y las otras abiertas, como parece por las demostraciones que están en las parte derecha y yzquierda, frontero de cada registro que tiene su número y demostración, que llega hasta número seis (6) y desde el número siete (7) comienzan los registros de hierro hasta el numero doze (12), en los cuales está el lleno deste órgano, que son quizenas, doçenas, sobrequizenas, trompetas, Xabebas, otras doçenas, según parece por las demostraciones puestas frontero de cada registro con su número en él; y ansí en estos registros de hierro como en los de madera an de echar metidos adentro los números semejantes de entrambas partes para que el registro sea entero y suene perfectamente, sonando ygual la mixtura que se echare y an de meterse o sacarse bien los registros, porque si no lo hazen así estará desafinado el órgano por no llegar al lugar que le conviene.

Tiene más este órgano grande otros cinco registros de madera más abajo de esotros que están en entrambos lados, que tienen sus demostraciones encima cada uno de lo que significan; que son los siguientes:

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<sup>2</sup> José Enrique Ayarra Jarne, "Un documento de excepcional interés para la historia de los órganos catedralicios de Sevilla," *Revista de musicología* 4/1 (enero-junio 1981), 3-4.

El Uno es una flauta viento general para entrambos órganos, para que cada vez que acaben de tañer lo metan soltando el viento para que no reviente por otras partes y haga algún daño.

El Segundo es registro de un ruyseñor, que metiéndolo hacia dentro suena como canarios muy dulcemente. Echase con algunas misturas señaladas que sean flautadas.

El Tercero registro es un atambor que metiéndolo hacia dentro suena a modo de atambor. A de echarse también con misturas flautadas para que se distinga; y advierto al músico que taña por el 4.º tono, porque no disuene.

Los otros dos registros restantes son Temblantes, que quitando las cuñas en ellos puestas y metiéndolos hacia dentro de ambas partes, suenan las misturas para ello señaladas muy bien y haziendo temblar las voces muy suavemente; y para estos temblantes las misturas an de ser flautadas.

El quita-viento del órgano grande son dos cordelitos, que está el uno a mano derecho y el otro a mano izquierda, que tienen sus demostraciones encima, que tirando de ellos hacia arriba y trabando las anilletas de los garabatillos que están allí se quita el viento del dicho órgano grande, y no suena cosa alguna, y tornando a destravar las dichas anilletas y afloxando los cordelitos y tirando de otros dos que están en los costados del órgano se torna a dar el viento y torna a sonar como solía.

El flautado principal y las flautas tapadas unisonas y las trompetas y las xabebas, todas estas mixturas se an de afinar con las octavas, que son número 3, metido de entrambos cabos.

Las dulçaynas o trompetas bastardas del órgano de la cadera y las flautas tapadas deste dicho órgano se an de afinar con sus octavas que son número 2, que están a las espaldas de el que tañe, en unos registros de hierro, y se han de sacar los dos hacia fuera del dicho número, porque todos ellos registros deste órgano suenan sacándolos hacia fuera y callan metiéndolos.

Tabla de los registros del órgano grande.